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YOUR FARM REPORTER AT WASHINGTON. Monday, November 3, 1930.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes. All Regions.

WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS?
(Cottonseed Meal)
No. 1

OPENING ANNOUNCEMENT: Every Monday Your Washington Farm Reporter broadcasts the results of a personal interview with some specialist in the United States Department of Agriculture. The subject for today is --- "WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS?" For information on that subject Your Reporter interviewed a feed chemist in the Federal Food and Drug Administration. All right, Mr. Reporter, tell us what you found out from this feed chemist.

---ooOoo---

Well, Mr. Announcer, I'll do my best. That reminds me that I want to talk to you people for a little while today about one of the biggest problems connected with the whole livestock industry. That problem is--- FEEDING LIVESTOCK.

I don't know where animals first learned to eat "store bought" feed unless it was while Noah had them in the ark. However, I do know that a lot of commercial feeds are fed to livestock at the present time.

As a result of last summer's prolonged and widespread drought it may be necessary formany stockmen who, perhaps, never before bought feed, to buy and use large quantities of commercial livestock feeds this fall and winter. If you belong to that class or to any class of stockmen you may be interested in what I am going to say about reading the labels on commercial livestock feeds.

Dr. John R. Mohler, as most of you know, is chief of the Federal Bureau of Animal Industy. His trusty assistant, Mr. D. S. Burch, thought so much of the "read-the-label" idea that he asked me to get a series of

talks on this subject. The first one of these talks will be on the subject of COTTONSEED MEAL. I'm going to discuss that subject today. Next Monday, November 10th, I'm going to talk about why you should read the label on MIXED FEEDS. On November 17th, my subject will be BY-PRODUCT FOODSTUFFS. The following Monday, November 24th, the fourth and last talk of the series will be on the subject of ALFALFA PRODUCTS.

Now for today's subject-----COTTONSEED MEAL. In order to get the latest information on that important livestock feed I climbed to the feed laboratory on the third floor of the building occupied by the Federal Food and Drug Administration. One whiff of the odors arising from the various tests going on in the laboratory convinced me I was in the right place.

Well, to make a long story short, I found Mr. G. L. Bidwell, who is in charge of the cattle-feed unit of the food control laboratory. He came out of New Hampshire and took up his work with Uncle Sam nearly a quarter of a century ago. He has examined and tested many different livestock feeds.

Reaching for his telephone, Mr. Bidwell said, "Mr Hoskins, in the Bureau of Agricultural Economics, please. --- Say, Hoskins, what per cent of our cottonseed meal is used for livestock feed? Yes, yes, yes --- all right, thank you."

Turning to me, Mr. Bidwell said, "Now, Mr Reporter, I'm going to try to tell you why stockmen ought to read the labels on cottonseed meal. This country consumes nearly 2,000,000 tons of cottonseed meal from one Christmas-eve to the next. The bulk of that is used for feeding livestock. Cottonseed meal is high in protein, and 2,000,000 tons of such a valuable livestock feed is certainly worth talking about.

"There was a time when the label on a sack of feed didn't amount to very much. That time is gone, and the label on a sack of feed today is, generally speaking, reliable and can be trusted. Therefore, stockmen will profit by reading the label on every sack or every lot of purchased livestock feeds."

"Why should they read the label?" I asked.

"Because," replied Mr. Bidwell, "the label tells what the feed is made from and what feeding elements it contains. A stockman buys cottonseed meal because he wants a high protein feed. Now the protein content of cottonseed meal naturally varies. If a stockman will take the time and trouble to read the tag on a bag of cottonseed meal he can know whether he's getting a 24 per cent protein or a 43 per cent protein feed.

Protein, you know, is a high priced feed ingredient, and no normal person wants to pay for 43 per cent protein and receive only 24 per cent protein. The label states the protein content---therefore, read the label."

At this point I interrupted the speaker to ask about the different grades of cottonseed meal on the general market.

"There are five," he said. "Any cottonseed feed that has less than 36 per cent protein can't, under the regulations, be called cottonseed meal. It must take the name of cottonseed FEED. Therefore, the first two grades are really classed as FEEDS instead of MEAL.

"The lowest class or grade is called undecorticated cottonseed feed. It contains from 24 to 26 per cent of protein. The next grade is called cottonseed feed. It usually contains from 30 to 35.9 per cent of protein. Then comes 36 per cent prime cottonseed MEAL; it contains from 36 to 38.6 per cent protein and is marked with the word PRIME which refers to the soundness and quality of the meal. The word PRIME has nothing to do with the protein content of cottonseed meal. The next grade is called 38.6 per cent prime cottonseed MEAL. It contains from 38.6 to 41 per cent of protein. The last grade is called 41 per cent prime cottonseed MEAL, and it contains from 41 to 43 per cent protein. There is some cottonseed meal sold that has even 45 to 47 per cent of protein.

"Now, you have three grades of cottonseed meal-----all marked PRIME, but one grade contains 36 per cent protein and another 43 per cent. There is a difference in the price of these different meals, but not always in proportion to protein content. Stockmen will be offered cottonseed meals with various protein contents. In that case, as well as in others, read the label on the bag of meal, and then select and pay for the one which is most economical for you.

"Some manufacturers produce what is commonly called '<u>cold-press</u>' meal. That's a product made from the whole cottonseed ground up, minus the oil. It contains from 24 to 25 per cent protein and the proper name is not cottonseed meal but cottonseed FEED. This is a good feed and is used extensively in some sections, but stockmen ought to know the difference between it and genuine cottonseed meal carrying a protein content of not less than 36 per cent. The label on the bag states the facts that I have brought to your attention. Therefore, read the label and KNOW what you are getting.

"Cottonseed cake is a by-product of the manufacture of cottonseed oil. Most of the cake is ground into meal. However, some of the cake is ground into very coarse pieces about the size of peas or beans. This is used in some sections for feeding livestock on the ground."

"Now look here, Mr. Bidwell," I said, "suppose a manufacturer does not have quite the reputation for honesty that George Washington had, couldn't he put 24 per cent cottonseed feed in a bag and label it cottonseed meal?"

"He could," was the quick reply, "but it's doubtful if he would. You see we keep an eye on feed manufacturers, test their products now and then, and they don't have much opportunity to go wrong. Besides, the big majority of feed manufacturers are good, reliable people and strive to put out a quality product. We simply help them in this effort by keeping a check on their feeds. Sometimes ignorant, incompetent or careless help will cause trouble, but Uncle Sam stays on the job. In the end, stockmen who make a practice of reading labels on feed bags will be repaid."

Well folks, I haven't told you half of the good things Mr. Bidwell told me about cottonseed meal, but I'm already running on a red light so I must step on the brakes right now.

Unfortunately there is no publication on the subject I have discussed today, but you are welcome to a copy of this talk if you want it. Ask this station for a copy of the WASHINGTON FARM REPORTER OF NOVEMBER 3, 1930, and remember to read and study the label on the next bag of cottonseed meal that you buy.

At this time next Monday I'm going to talk to you about reading the label on MIXED FEEDS.

---ooOoo---

CLOSING ANNOUNCEMENT: And so we close another one of the Washington Farm Reporter programs broadcast from Station_____ in cooperation with the Federal Department of Agriculture. Drop us a line if you want a copy of this talk. Ask for the WASHINGTON FARM REPORTER OF NOVEMBER 3, 1930.

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YOUR FARM REPORTER AT WASHINGTON. Tuesday, November 4, 1930.

Speaking Time: 10 Minutes

NOT FOR PUBLICATION

Crops and Soils Interview No. 59: The Fall Clean-up

ANNOUNCEMENT: Your farm reporter at Washington will now give us the latest advice he has gathered from specialists of the United States Department of Agriculture. This time he brings us a well-tried plan, which may mean money in our pockets next year. The work he suggests is not new to us. He is just offering it as a gentle reminder ----- Well, Mr. Reporter? -------

******

Now is the time to clean up along the fence rows and other waste or weedy spots about the farm. That is, if you want to keep down damage from such insects as chinch bugs, or corn stalk borers, or sorghum midges, or alfalfa-seed chalcids, or cutworms and leaf-hoppers, and a number of less important pests as well.

That is what Dr. W. H. Larrimer, who is in charge of the division of cereal and forage insects of the United States Department of Agriculture, tells me.

By a general fall clean-up, he says, we will not only kill off vast numbers of these pests, but we will expose others of them to the severe winter cold. In other words, we will get two whacks at them, and so kill off a lot more than if we wait until Spring, for the clean-up.

And aside from being important to kill the crop killing pests, as Dr. Larrimer suggests, a general clean-up improves the looks of the place. The farm with the fence rows clear and the waste lands trimmed up looks better. A general clean-up is well worth the time and labor it takes for that reason alone.

But that reason is not alone. Dr. Larrimer says a good fall clean-up on farms in this country means the saving of millions of dollars. And those "millions of dollars" are not just figures of speech. Actually, Dr. Larrimer insists, the damage runs into millions. Of course, he wouldn't say just how many million. He claims nobody can say for certain. Some of you don't need to be told, however, that the damage runs into big money. You know from experience.

Take chinch bugs, for instance. The chinch bug is one of the most destructive of all our native insects attacking grain and grass crops in this country. The damage is often something awful, in the full and true sense of that word, the Doctor says.

He tells me he has seen entire fields of corn in Illinois with the plants lying down flat to the ground; killed by chinch bugs. The fields looked as if they had been scorched.

Chinch bugs thrive best and multiply fastest in dry weather. In the past few years, the chinch bug hasn't cut much of a figure or cut much corn. It seemed that that well-known crop enemy was practically done for. Then came this record dry season and chinch bugs have come back strong.

That is the way it is with insects. They are low enough down in the scale of life to be well adapted to changed conditions. They can be about extinct, and then be back to injurious numbers in one season. That is also the reason it is important to get after them before they have a chance to begin to multiply in tremendous numbers early next spring.

The chinch bugs which have matured on late corn, and grasses and kafir and volunteer wheat have now gone into winter quarters on broom sedge and other bunch grasses. There they hide and sleep along the fence rows and other waste land. Early next spring, they will sally forth and fly in swarms to the grain fields. There they will start a new supply of chinch bugs and more damage.

They will, unless you burn those grasses and kill them off this fall and winter. In some regions it is still much too dry to play with fire around farm fences and buildings; so be careful with that burning. Dr. Larrimer, who was raised on a farm, admits he burned up a hay-stack long after he was old enough to know better how to burn.

Unlike the chinch bugs, the corn borer was not especially favored by the weather condition this year. In fact, Dr. Larrimer estimates that the infestation of corn borers dropped this year to about what it was in 1926. That is, the thickness of the infestation. Of course, the territory in which corn borers are found continues to spread year by year.

A lot of farmers have suffered little or no damage from corn borers. They have been fed up on what the corn borer is going to do to them. Dr. Larrimer says he doesn't blame them for feeling that way, but he knows they are wrong. One good year, and the corn borer may increase its damage enough to convince the most skeptical. Fortunately, conditions have not favored the corn borer for the past two or three years, and that is giving us a chance to build up defense against it. Just because the corn borer has been penalized fifteen yards, as it were, is no sign the game is over yet. It may come back strong. For that reason, it is highly important that there be no let-up in the clean-up.

There is a bulletin on the"European Corn Borer; Its Present Status and Methods of Control". It is Farmers' Bulletin No. 1548. There is also one on "The Chinch Bug and How to Fight It." That is Farmers' Bulletin No. 1498.

The sorghum midge is another insect largely kept under control by a clean-up around the outside of fields. It is carried over in waste heads and in the grasses kin to sorghum. The sorghum midge is by far the most important insect attacking the grain sorghums. It blasts or blights infested grain.

You can avoid spring infestation by burning over the waste places this fall or winter. "The Sorghum Midge with Suggestions for Control," is the name of Farmers' Bulletin No. 1566, which will give the sorghum grower many other good suggestions and complete details how to handle this pest.

The Alfalfa Seed Chalcid fight in the Southwest and Intermountain and northern Rocky Mountain region is an all year around proposition. Alfalfa should not be allowed to grow up and go to waste in summer or in winter. However, one phase of the fight is burning off the weeds and alfalfa along check ridges and fence lines, in the fall and spring.

As Dr. Larrimer says; "No bug enjoys a good burning." And he likes a good burning and a good freezing even less. By burning waste grass many of the insects are exposed to the winter cold, and so many more are killed which escape the actual burning.

Clean-up as early in the fall as you can. Don't put it off until Spring. In Spring, there is the matter of labor. Often, in many sections of the country, it is too wet to burn in the Spring. When things get dry enough, you want to go to plowing. You want to get your crops in.

The best plan, Dr. Larrimer suggests, is to have a general clean up now as soon as possible. But in burning, do be careful of fire.

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ANNOUNCEMENT: Let's repeat the names and numbers of those bulletins. You can get them either by writing to Station____ or by writing direct to the United States Department of Agriculture. "The Chinch Bug and How to Fight It." is Farmers' Bulletin No. 1498. The European Corn Borer, Its Present Status and Methods of Control" is Farmers' Bulletin No. 1548. The Sorghum Midge with Suggestions for Control, is Farmers' Bulletin No. 1565.

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YOUR FARM REPORTER AT WASHINGTON

Wednesday, Nov. 5, 1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutes

Poultry Interview No. 60: PREPARING FOR THE HOLIDAY MARKETS

ANNOUNCEMENT: Here is Your Farm Reporter at Washington, ready at this time with his report on "Preparing Poultry for the Holiday Markets." He brings you suggestions direct from his friend, A. R. Lee, who is associate poultry husbandman for the U. S. Department of Agriculture in Washington. All ready, Mr. Reporter-----Let's have those suggestions.....

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Well, sir, here it is, almost time to begin doing your Christmas shopping early. That means we'll soon be bidding farewell to old 1930. And what a year to bid farewell to! If I had the job of writing notations on the pages of history, I'm not sure just what I would write for 1930. I'm not sure that the right word is in my vocabulary. "Hectic" is about the best I can do, offhand.

But at any rate, everybody will have to agree that 1930 is no common garden variety of year. I suppose, to put it as politely as possible, you'd say 1930 was "different."

Well, and, this difference even extends to fattening poultry for the holidays. I remember last year about this time, I had a similar talk with Mr. Lee, which I told you about. And I started off then by repeating Mr. Lee's assertions to this effect: "Well-fattened chickens are in special demand for the holiday trade. And most folks are willing to pay premium prices for high-quality holiday meat."

Now, I could say the same things again. They're still true. But this year those statements need qualifying. As Mr. Lee says, the prices of marketpoultry are rather low right now; so it may be less profitable than usual to fatten poultry very much. Not only because of price, either, but also because in some sections there is a limited amount of corn available for fattening. Some folks aren't in position to fatten poultry as they might like to do.

However, with all due allowance for these qualifications, the fact still remains that the holiday trade wants good-quality chicken and turkey. And higher quality will mean higher price. Where it can be done with reasonable economy, fattening will doubtless still pay a profit.

There's one thing that Mr. Lee emphasizes especially, this year. This is, that it will pay to select poultry to be fattened, carefully. Market, without fattening, the birds which have not made good growth, or which are not in fairly good condition. It rarely pays to fatten hens either, says Mr. Lee. Hens are usually in good condition at this time, without special feeding------and trying to fatten them is apt to be largely wasted effort.

Another good rule, which is a good rule in any year, is to be sure of your markets. Don't fatten poultry unless you're sure, beyond a reasonable doubt, that you have a profitable market for a high-quality product. It usually pays to fatten for the retail trade, or for special markets. Or your market MAY be your own table.

Now, I suppose most of you will be fattening your chickens on the range. And here is another place where 1930 is going to be a little different. The usual way is to give more feed, and increase the proportion of corn and corn meal in the ration, beginning 1 to 3 weeks before chickens are marketed. Well, with corn scarce, other products will very likely take the place of much of the cornmeal, this fall. Ground wheat, ground oats, and ground barley all make good substitutes. If you're using commercial mixed feed, Mr. Lee suggests converting into a fattening ration, by adding one of these three feeds, or cornmeal. One part of this grain to one part of mash gives good results.

For fattening roasters, both pen and crate fattening give good returns, Mr. Lee said. Crate fattening, as you know, produces a better quality of flesh; but on the other hand, it requires more work. It is suitable, largely, for producing fancy table poultry for the retail trade.

So I take it that pen fattening is the method you'll probably be interested in. Here are some pointers, which Mr. Lee gave me. We'LL assume that you have 20 to 30 chickens confined to a pen, to be fed heavily. A mash recommended by the Department of Agriculture is made up of the following: 4 parts of corn meal, 3 parts of ground wheat, and 2 parts of either ground oat or ground barley, to 1 part of middlings. Feed this with skimmilk or buttermilk. Liquid milk is VERY desirable in any fattening ration, Mr. Lee says, because it tends to bleach the color of the skin, which is recognized as a mark of high quality.

However, if milk is not available, probably the next best thing is to add 8 per cent of meat scrap to the mash.

Now, here's a warning. Pen fattening usually requires from 7 to 14 days. And the warning is, to watch your birds carefully right from the start. Any birds that do not eat well ought to be removed and marketed because otherwise they're apt to lose rather than gain weight.

Well, so much for methods of fattening. Regardless of what method you use there are certain general principles that apply always. Two important rules are: "Feed lightly for the first day or two;" and, "See that the bird's crop is empty when it is killed for market."

Now, I asked Mr. Lee about how much you could expect chickens to gain during the fattening process.

"Well," he said, "let's figure it up. It takes from 3 to 4 pounds of grain to make a pound of gain; that is, if grain is fed with 1 to 2 parts of milk. Without milk, you'd need from 7 to 8 pounds of grain. So you might expect average gains of around 25 per cent with chickens weighing around 3 pounds apiece; 20 to 25 per cent on roasters; and 30 to 35 per cent on broilers."

Now all this applies to chickens. But how about turkeys? We certainly can't afford to overlook turkeys -- not at this time of year.

First of all, most turkeys raised on range don't fatten well in confinement, of course. So the best way is to range fatten them for 6 to 8 weeks before they are to be marketed. Mr. Lee recommends this plan:

Start feeding lightly in the morning and evening, and gradually increase the quantity of feed until the turkeys are given all they will clean up three times a day. Equal parts of corn, wheat, barley and oats may be fed at first. Then, as the weather gets cooler, and the fattening period progresses, increase the proportion of corn until finally the ration is largely corn.

Now, on the other hand, if turkeys have been raised in confinement--- and brought up on a mash feed---- they can be fattened in confinement, and fed a fattening mash.

Goose fattening is also another story, I learned. Geese are usually fattened in pens, of from 20 to 25. A moist mash made up of 1/3 shorts or ground wheat, 1/3 corn meal, and 1/3 ground oats or barley, is a good feed. And it is supplemented by two feeds daily of corn mixed with wheat barley and oats. Keep the pens partly darkened and keep the geese quiet, is Mr. Lee's advice. And it's also a good idea, he says, to bed the pens with oat straw, and to give the geese plenty of roughage to eat.

Of course, sanitation is very, very important in all cases ----with any kind of fattening and any kind of poultry.

And here's a little reminder, as a sort of parting shot for to-day. Remember that it isn't too late to can old hens, or cockerels, which are still tender. By putting them up in cans you'll have them available for use on your table, during the winter, when there is no surplus stock to be killed.

And if you'd like to get detailed information on fattening and marketing, here are two bulletins to write for. "Feeding Chickens," is Farmers' Bulletin No. 1541-F; and "Marketing Poultry," is Farmers' Bulletin No. 1377-F.

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ANNOUNCEMENT: This concludes the 10-minute chat by Your Farm Reporter at Washington, who has just talked with you about preparing poultry for the holiday markets. The two bulletins he mentioned were "Feeding Chickens," Farmers' Bulletin No. 1541-F; and "Marketing Poultry," Farmers' Bulletin No. 1377-F. Write for copies of this publications either to Station____or to the U.S. Department of Agriculture in Washington.

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YOUR FARM REPORTER AT WASHINGTON. Thursday, Nov. 6, 1930.

Federal Farm Board Interview No. 59: The Kernel of Co-operation Among Pecan Growers.

ANNOUNCEMENT: What are the recent developments in the farmers' cooperative marketing movement? Each week, your farm reporter at Washington checks up with specialists of the Federal Farm Board to find out for us. This week he will report to us a remarkably fast development of co-ops among groups of southern farmers who have already demonstrated their far-sightedness ---- but your farm reporter will tell you about that ------ Well, Mr. Reporter? ------

****

Since the first of July, eighteen or nineteen local associations have been set up by pecan growers, and joined in to a National Pecan Marketing Association.

A few months back, there were only two pecan co-ops, both with headquarters in Albany, Georgia, and operating in South Carolina, Georgia, Florida, Alabama, and Mississippi. Their business was only a small part of the total pecan production, which increased from about three million pounds in 1899 to a maximum of eighty million pounds in 1926.

Now, we have the National, with eight or nine local co-ops in Texas, four in Oklahoma, two in Mississippi, two in Alabama, one in Georgia, and one in South Carolina. Another local will be formed, in Florida, after the first of the year. The National, however, is already a going concern, and has begun the job of handling millions of pounds of pecans for its member locals this season.

Mr. H. F. Buchanan, business analyst of the cooperative division of the Federal Farm Board, has been telling me what has brought about this development.

The pecan crop this year is short. Due to the ravages of the insects such as the nut-case-bearer, and aphis, production is expected to be far below normal. In spite of the short crop, the pecan growers have been unusually quick to organize. Evidently, farmers who have planted a crop, which takes eight years to come into bearing, are accustomed to looking ahead.

Mr. Buchanan, who made a survey of the pecan situation to determine the possibilities of cooperation on a wider scale, says there are some cities and even States in this country where pecans are practically unknown. Heretofore about half the production has been sold in the Central West, and less than a third in the North Atlantic States. The distribution is very uneven.

The seasonal consumption is also uneven; eighty per cent of the pecans are consumed in November and December. Pecans have been practically a holiday proposition, with sales from Thanksgiving to Christmas. Yet they are just as good to eat in February and March.

One of the objects of the new National Pecan Marketing Association will be to advertise and merchandise all varieties of pecans produced according to standard grades or established brands, and so widen the market and increase the present low per capita consumption of pecans.

The Thanksgiving to Christmas nature of the pecan market has also led growers and grower organizations to cut prices to move the crop near the end of the short season. By spreading out the marketing period, and control of a large volume under one organization, it is hoped to prevent this wild dumping and bring about more orderly marketing at steadier prices.

While pecan production may probably never be absolutely controlled, Mr. Buchanan says the supply can be stabilized. Pecans are a crop characterized by wide differences in the yield. Experience has taught growers that often a good year will be followed by a short crop, or maybe two short crops, as was the case this year and last.

It has been found, however, that pecans can be stored from year to year. Considerable quantities can be carried over from big crop years into years of short supplies.

One purpose in the organization of the National was to provide an effective agency through which the Federal Farm Board may function in making available to pecan growers the benefits of the Agricultural Marketing Act.

Where the local association can not get enough money locally to provide the physical facilities, such as warehouses, and grading machinery, and other equipment, loans may be secured from the National Association which in turn secures funds from Federal credit agencies.

The organization of this national co-op of pecan co-ops, Mr. Buchanan explains, is very democratic. Any local community which has enough pecans to justify economical operation can form a local association to affiliate with the National. How much is "enough" varies in different sections of the wild and paper-shell pecan belt. The minimum for membership in the National has been fixed at one hundred thousand pounds. Mr. Buchanan says a much larger volume; at least, three hundred thousand pounds; is much better.

Each local association is owned and controlled by the pecan growers. It has its own charter and by-laws and its own Board of Directors and officers. Each local elects one representative to the National, who becomes a member of the Board of Directors of the National, so the central sales association is controlled directly by the elected representatives of the locals.

The grower member brings his pecans to the local. The local receives, and grades the nuts and ships them on instructions from the National.

All the pecans are sold by the National, which has its main offices in Jackson, Mississippi. Sales returns are passed back from the National to the local and from the local to the grower.

The standard grades used by all the local associations which are members of the National are established by the central organization, which also maintains an inspection service on grades, and disseminates market and other information to locals and growers.

Then, too, the National has this job of advertising and stimulating the demand; working toward the goal of wider distribution both graphically and seasonally.

Just how much the National with its eighteen members will market this its first year, Mr. Buchanan could not say. The probable amount estimated at six to seven million out of an estimated total of thirty million odd pounds, or just about half the estimated total yield in a fair crop year. However, he says, there is no foreign competition, and the pecan growers have the world for a market. That market is undeveloped.

Cooperative farmers in other marketing associations will watch the National Pecan Marketing Association with interest to see how it meets the problems with which it is faced.

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ANNOUNCEMENT: Your farm reporter at Washington has just outlined to you some of the recent developments in the cooperative marketing of pecans, as described by Mr. H. F. Buchanan, specialist with the Federal Farm Board. This Station _____ is cooperating with the Board and with the United States Department of Agriculture in presenting these reports.

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YOUR FARM REPORTER AT WASHINGTON Friday, November 7, 1930

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Speaking Time: 10 minutes.

Dairy Interview No. 60: GIVING DAIRY CALVES A GOOD START

ANNOUNCEMENT: At this time Your Farm Reporter at Washington brings you the results of his latest interview, on "Giving Dairy Calves a Good Start." The man interviewed was Mr. J. B. Shepherd, feeding and management specialist in the Bureau of Dairy Industry, of the U. S. Department of Agriculture. Your Reporter gives you now, a summary of Mr. Shepherd's observations. All ready .....

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If I were to dignify this report with a text, it would be that "A good start is at least half the battle."

And so the chief impressions I get from talking with Mr. Shepherd, are that hundreds of thousands of dairy calves will be entering the world during the fall and early winter months and that the first month is undoubtedly the most critical period in the calf's entire life. You may "make 'em or break 'em", as the expression goes, in the first three or four weeks. Dairy heifers raised for the future milking herd need to have a good start.

However, we don't need to be told these things. What I do want to tell you is, first, that Leaflet No. 20, called "Care of the Dairy Calf," has been revised and reprinted, and you can now get the leaflet, free of charge, in its up-to-date form. And second, I want to tell you how they bring up dairy calves at Uncle Sam's experimental farm near Beltsville, Maryland.

Let's have Mr. Shepherd tell this part in his own words.

"We tried to work out a scheme to keep calves as free as possible from digestive disturbances," he said. "And to keep them free from exposure to other troubles and diseases.

"This plan has been used now for sometime and gives good results. Here's the way we do it:

"First of all, each calf is left with its mother for only 12 hours. Immediately after birth, the navel cord is severed 1 inch from the body; and the short stump left is then thoroughly soaked with tincture of iodine.

"Then, when the calf is 12 hours old and has had its first milk of colostrum, it is taken from its mother and removed to an individual pen. Each pen is about 4 feet wide, 6 feet long with tight sides which are about 3½ feet high. Of course the pen is thoroughly disinfected before tha calf is admitted and is kept well bedded down with dry straw or other suitable bedding material.

"Now, the calf is kept in this pen for 30 days. The pens are in a barn where there is plenty of light and ventilation, and the calf is able to get quite a bit of exercise, even in this small space. The reason for the small tight pen is that calves can't come in contact with anything outside. This eliminates the danger of navel injury, and it helps in protecting the calf from disease germs. In other words, the calf is more or less isolated.

"Now about feeding. We feed whole milk for 30 days. This is a little longer than many farmers feed whole milk, I know, but we believe that our results justify it, in our case, and the total quantity fed is not very large. The calf gets its first feed after it has been away from its mother for 12 hours and gets its mother's milk for several days. It is fed just twice a day, right from the start.

"How much milk do the calves consume? Well, we raise large numbers of both Holstein and Jersey calves. The Holsteins, being the largest, get the most milk. All normal vigorous calves of the same breed get the same quantities of milk, while weak or sickly calves are fed greatly reduced quantities until they are capable of digesting normal quantities. We believe that limewater is beneficial to the calf for the first 3 or 4 weeks, and add it to their milk. Here are the quantities of milk and limewater fed:

"Jersey calves receive 2½ pounds of whole milk and ½ pint of lime water per feed for the first ten days; 3 pounds of whole milk and ½ pint of lime water per feed for the second 10 days; and 4 pounds of whole milk and ½ pint of lime water per feed for the 3rd 10 days.

"Holdstein calves receive 4 pounds of whole milk and ½ pint of lime water per feed for the first 10 days; 5 pounds of whole milk and ½ pint of lime water per feed for the second 10 days; and 6 pounds of whole milk and ½ pint of lime water per feed for the third 10 days.

"Remember, this is on the basis of two feeds per day. During this period Jersey calves consume 190 pounds of whole milk and Holstein calves consume 300 pounds. From 50 to 65 pounds of additional whole milk per calf are required during the change from whole milk to skim milk feeding.

"How do you make lime water, you ask? Well, take one pint of commercial hydrated lime and stir it into a bucket of water. This is the common plaster lime usually sold in paper bags. Mix this thoroughly with the water several times at short intervals, and then allow the lime to settle. Then use only the clear water, and do not stir again. When this supply of lime water is gone, use fresh lime to make up a new batch.

"Well, so much for milk. Along about the beginning of the third week we begin to give the calf small amounts of both hay and grain. We feed the most palatable hay on hand----clean, bright clover, alfalfa, or mixed hay, if possible. We give it sparingly at first, and then gradually increase the amount as the calf gets accustomed to it.

"As to grain, there are 3 requirements----it should be palatable, it should have a good effect on the digestive system, and it should supply the food materials which the calf needs. Such feeds are home-grown grains, like corn and oats; and purchased feeds, like wheat bran and linseed meal.

"Now, a calf 3 weeks old will eat only a handful or two of grain a day. But we increase this amount gradually until the calf gets about one-half pound daily at 4 weeks of age; 1 pound at 6 weeks; 1½ pounds at 8 weeks, and 2 pounds at 10 weeks to 3 months.

"Silage, you say? Well, silage is not a satisfactory feed for YOUNG calves. However, it may be included in the ration when the calf is 3 months of age. But even then, feed it sparingly at first. It is too laxative when given in liberal amounts."

Well, this just about concludes what Mr. Shepherd actually told me about Uncle Sam's system. He did, however, point out several references in Leaflet No. 2o, in answering my questions. And so I'm going to do the same with you. If there are details you want to ask about, I suggest that you write for this Leaflet, and you'll probably find your answers there.

And now here's another suggestion, about stalls for the calf. Out at Beltsville they have individual box-stalls, with floor of cork-brick and walls of concrete. Well, this is rather expensive for the ordinary farm, I'd say. But you CAN use cheaper materials that are satisfactory. And for that matter, large-sized packing boxes or piano boxes make excellent homes for the young calf----if you can get them cheap. Keep them well-bedded, and dry, and clean, and the calf will thrive. Then, when the calf is ready to leave, have a bonfire and turn the box. Put each calf in a new box.

"Some of these things I've talked about," Mr. Shepherd remarked to me," may seem like a lot of extra trouble. But our experience, and the experience of many breeders who have experienced difficulties in calf raising

has been that such careful methods are effective. They pay ample returns for the extra trouble, in healthier, thriftier calves. And it is healthy, thrifty calves which will make the dairy herds of tomorrow, profitable."

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ANNOUNCEMENT: You have been listening to Your Farm Reporter at Washington, who has reported his interview on "Giving the Dairy Calf a Good Start." If you want copies of that publication on "Care of the Dairy Calf," which is Leaflet No. 20-L, send your requests either to Station _____ or direct to the U. S. Department of Agriculture in Washington.

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YOUR FARM REPORTER AT WASHINGTON: Monday, November 10, 1930.

NOR FOR PUBLICATION

Speaking Time: 10 minutes. All Regions.

WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS?
(Mixed Feeds)
No.2.

OPENING ANNOUNCEMENT: And now, ladies and gentlemen, Your Washington Farm Reporter is ready to present the second in a series of 4 talks on the subject "WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS?" Last Monday Your Reporter talked about cottonseed meal. Today, the Department of Agriculture spokesman is going to talk about reading the labels on MIXED FEEDS. All right, Mr. Reporter, mix the feeds.

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Well folks, my subject for today is MIXED FEEDS. During my talk on that subject, I'm going to try to tell you why it's to YOUR advantage to read the labels on the commercial mixed feeds that you buy this year or any other time.

Speaking of mixed feeds and of mixing things in general, reminds me of the mixing of the waters of the Mississippi and Ohio Rivers. These two great rivers meet about a mile below the city of Cairo, Illinois, but they race on toward the Gulf of Mexico for several miles before they shake hands and become one river. In other words, they don't mix the moment they come together. Viewed from a river steamer, the line of demarcation between the clear waters of the Ohio and the muddy waters of the famous old Father of Waters is noticeable for quite a distance below Cairo. However, the two waters finally become reconciled to each other and, long before they roll under the bluffs at Memphis, they have become so thoroughly and completely mixed that nobody, except perhaps Mark Twain, could possibly tell "which is tother,"

That's somewhat the way it is with commercial livestock feeds after they have been thoroughly mixed. Few, except a feed chemist or a feed expert, could tell whether the mixed feed was amde of a mixture of a few feed materials or from a mixture of many of these product

I thought perhaps many of you stockmen would be interested in a discussion of this subject of MIXED FEEDS. Therefore, I again climbed to the third floor of the building occupied by the Food and Drug Administration, United States Department of Agriculture, in Washington.

"Good morning, boss," was the cheery greeting I received from the attendant, as I entered the feed-control laboratory. "You want to see Mr. Bidwell AGAIN?"

"Yes, again is right," I said. "You see, he didn't tell me all he knew about feeds last Monday, so I'm going to keep coming back until I pump him dry on that subject."

"Uh," said the colored attendant, "you'll have a hard time pumping him dry unless you work long and hard because he's a regular storehouse of information on livestock feeds and feed materials."

"Now," said Mr. Bidwell, after we had exchanged greetings, "you want to talk about MIXED FEEDS this morning, don't you?" "That's right," I replied.

"All right," said Mr. Bidwell, "we'll start at the beginning."

"A great many stockmen in this country buy, use, and like mixed feeds. Now, the bulk of these mixed feeds are evidently good or the mixed feed industry wouldn't be what it is-----a tremendous industry. On the other hand, there are thousands and thousands of livestock producers who mix their own livestock feeds and like that system of feeding. Now as I understand it, Mr. Reporter, I'm not to pass on the merits of either one of these feeding systems. My job is to tell you WHY stockmen ought to read the labels on the bags of mixed feeds they buy. Is that right?"

"That's right, Mr. Bidwell," I replied.

"Now," said the speaker, "we've been using mixed feeds in this country on a commercial basis for 30,40, or perhaps 50 years. However, the use of mixed feeds has increased enormously during the past 10 or 15 years.

"There are several meanings attached to the term commercial mixed livestock feeds. For example, dairy feeds, stock feeds, fatteners, laying mash, and so on down the line, according to the use of the feed.

"Sometimes a mixed feed is spoken of according to the ingredients from which it is made. For instance, a 'straight mixture' is a loose term for feeds containing no by-products of oats, corn and alfalfa feeds.

"Then there is a regular by-products feed which contains various by-products from cereals."

"Mr. Bidwell," I interrupted, "generally speaking, are mixed feeds very high in protein content?"

"That depends on what the feeds are made for and from," was his quick response. "For instance," he said, "grain by-products, as a rule, are not high protein feeds. Consequently, mixed feeds made mostly from grain by-products usually include in the mixture a high protein feed of some kind such as cottonseed meal, linseed meal, fish meal, or tankage. These feeds often contain some of the lower-grade grain by-products also. These lower grade grain by-products are often called 'fillers'. The usual value of a filler is to absorb molasses.

"Perhaps the very lowest grade of commercial mixed feed is the one made from a very LOW grade of by-products and then coated with molasses. This class of mixed feed, I'm glad to say, is rare, and the manufacturers of such feeds seldom stay in business very long."

"Can you give me an example of these low grade mixed feeds?" I questioned.

"Sure," he answered. "Some years ago, a feed manufacturer shipped a carload of so-called mixed feed into the District of Columbia. The ingredients in this feed were rice hulls and molasses. Now rice BRAN is a feed of considerable value, but rice hulls have practically no feeding value. Consequently, this feed was grossly misbranded and seized by the United States Marshall. After the necessary legal proceedings the court ordered the material confiscated and destroyed."

Right here I would like to pause long enough to ask you listeners how YOU would destroy a worthless carload of so-called feed. Of course, you can't talk back through your radio receiving set, therefore, I'll tell you what the united States Marshall did with the carload of feed in question. He buried a charge of dynamite on the city dump heap, piled the feed sacks on top of the dynamite, and set off the dynamite. The result was a mixture of sand, ashes, tin cans, and so-called feed.

Luckily for stockmen there are not many instances such as I have just given you. On the contrary, most mixed feeds are good. Why, many feed manufacturers employ research organizations and even experiment farms where trained men are working the year 'round to improve feeds and to produce a more suitable and/more economical product.

When you read the label on a bag of mixed livestock feed, Mr. Bidwell urges you not to be too much concerned over the presence of some low-grade by-product. It may be that this known low-grade by-product, when supplemented by other high-grade products, gives an economical feed of excellent qualities. In this way, it's possible to utilize low grade material that might otherwise be wasted. If it were not possible to use these lower grade feeds that have a REAL feeding value, our supply of feeding stuffs would undoubtedly be restricted and the price level much higher. Therefore, don't stop at reading the label on a bag of mixed feed------study it. If the label indicates that one or two-low-grade by-products were used in making the feed----- that's no cause for alarm. But, if several low grade by-products are listed on the feed label, then it's time to stop, look and listen, because you may be approaching a dangerous crossing and the label is the watchman. If you are feeding a mixture of this kind, look for results. If you don't get results---check up on the feed.

The guaranteed analysis of protein, fat and fiber printed on the feed label are not absolute measures of the value of a feed, but they are of considerable use in determining whether the feed contains an excessive amount of the low-grade by-products. It is also an indication of the feeding value.

Therefore, in closing the second talk in this series of programs, let me urge you to read and study the labels on the bags of mixed feeds that you buy and use, this year or any other time.

Next Monday at this time I'm going still deeper into the subject of by-products feeding stuffs.

There are no Department of Agriculture publications on the subject I have discussed today. However, you may have a copy of this talk. Ask for the WASHINGTON FARM REPORTER OF NOVEMBER 10, 1930. You can get it by addressing your request to Station_____in_____.

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CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to one of the regular Farm Reporter programs broadcast from Station_____ in cooperation with the Federal Department of Agriculture. Drop us a line if you want a copy of the WASHINGTON FARM REPORTER OF NOVEMBER 10, 1930.

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YOUR FARM REPORTER AT WASHINGTON

Friday, November 21, 1930

NOT FOR PUBLICATION

Speaking Time: 9 minutes.

Dairy Interview No. 62: THE HONORARY GUILD OF GOPATIS

ANNOUNCEMENT: Again Your Farm Reporter at Washington is here for his Friday talk with dairymen. He has a sort of fancy title for his report today. He calls it "The Honorary Guild of Gopatis." (Pronounce Go-Pā-tis). And now, Mr. Reporter, tell us just what this means....

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Way back in the dim ages, 5 thousand or so years ago, the wealth of many tribes and people consisted largely of cattle.

There were no millionaires in those days, because it is pretty hard for one man to amass a million cows.

But since cattle formed their principal wealth, these ancestors of ours always appointed one of their greatest leaders to take charge of this wealth, and be responsible for it. This man was a sort of Secretary of the Treasury. He was a person of great honor and renown. And he was called Gopatis, (pronounced Gō-pā-tis), which means, "Lord of the Cows."

And so it happened, that only a few years ago, leading dairymen of the United States, organized what they call The Honorary Guild of Gopatis."

There is a place in this organization for every man who qualifies as a Gopatis. But there is a place for on one else. I am assured that you can't buy your way in, at any price. As in the old days, the word Gopatis is concerned first of all with merit, not with wealth.

A certificate of memberships is given to any dairyman who owns, or cares for, a herd of 5 or more dairy cows, PROVIDING these cows yield an average of 300 pounds of butterfat or more for the year.

That is the one and only requirement. If your herd averages 299 pounds of butterfat for the year, you simply don't qualify, regardless of

wealth, prestige, previous condition of servitude, or what-have-you.

And as in the old days, the members of the present-day Honorary Guild of Gopatis are great men---men of honor and renown---in the dairy world.

Let Dr. J. C. McDowell, veteran chief of dairy herd-improvement investigations in the U. S. Department of Agriculture, tell you what he thinks of the modern Guild of Gopatis.

"These are the men who are the actual owners or managers of our highest and most profitable dairy herds," says Dr. McDowell. "They are leaders of their communities. With a membership already of around 10,000 they are becoming a great power in the promotion of better dairying everywhere.

"Consider the figures a moment. The average production of our dairy herds in the United States is approximately 180 pounds of butterfat per cow, per year. The average production of all herds on test in Dairy Herd-Improvement Associations is 296 pounds. So you see, the members of The Honorary Guild of Gopatis have herds which average at least 120 pounds above the production of the average herds in the United States, and at least 4 pounds above that of the average herd on test in associations.

"And so," Dr. McDowell says,"while the modern Honorary Guild of Gopatis is still in its infancy, it is having tremendous influence in all parts of the country----in bringing about better dairy farming and in increasing the profits from our dairy herds."

Now, the idea of awarding certificates to 300-pound herds was conceived by Prof. H.E. Van Norman, who was president of The National Dairy Exposition at the time. I guess most of you know, or have herd of, Professor Van Norman. He was formerly a professor of dairying in Pennsylvania and in California; and besides being president of The National Dairy Exposition he was president of The World Dairy Congress in 1923 when it was held here in the U. S.

Anyway, the Guild holds a meeting each year at The National Dairy Exposition. And this year 250 members were present to take part.

Now, in Dr. McDowell's opinion, it won't be long until the average of herds in Dairy Herd-Improvement Associations will be within the charmed circle. Three years ago the average was 289 pounds; the next year it rose to 293 pounds; last year it was 295 pounds; and this year it is 296 pounds.

As you know, the members of the Guild of Gopatis have built up their 300-pound herds first, by testing; then by culling out low-producing cows, which are unprofitable; and then by putting into practice up-to-date methods of feeding and breeding.

These are the things which are going to make dairying profitable in the future, in Dr. Mc.Dowell's opinion. Better feeding---better bulls---and intelligent culling. And he believes that they are more important right now than they have ever been before in our history.

And this is why he believes it:

"When George Washington crossed the Delaware and licked the Hessians at Trenton, what did he do?" he asked. "Well, he selected 2,400 picked men to go with him. If he had taken the whole army he probably would have been defeated.

"Now, it seems to me that it is up to dairymen to profit by this example. If we are going to lick our enemy---by which I mean the drouth, low prices, and high feed costs---we must pick our troops. It is up to us to make use of high-producing cows, and of high-producing cows only.

"For, the man who has a low-producing herd of dairy cows today is licked before the battle begins," he declared. "He has no chance to win. But, like the members of the Honorary Guild of Gopatis, let him eliminate the low producers and build up his herd until the average production of butterfat is above 300 pounds a year. That is the only way he can put his herd on a firm profit-making basis; and it will be the only way he can successfully survive in the competition that is coming."

And now, with that thought, I'll have to leave you until next Monday at this time. Let me suggest, however, that you will find interesting information on dairy herd-improvement work in Farmers' Bulletin No. 1604-F, called "Dairy Herd-Improvement Associations, and Stories the Records Tell."

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ANNOUNCEMENT: That was Your Farm Reporter at Washington, who has just brought you a report on "The Guild of Gopatis." If you want a copy of that bulletin, write for Farmers' Bulletin No. 1604-F, either to Station ___ or to the U. S. Department of Agriculture in Washington.

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YOUR FARM REPORTER AT WASHINGTON — Tuesday, November 11, 1930.

Not for Publication

Crops and Soils Interview No. 60: Recent Developments in Fertilizers

ANNOUNCEMENT: And now we have your farm reporter at Washington. He has been talking with fertilizer experts of the United States Department of Agriculture. Now he is going to tell us what they told him about the remarkable changes in fertilizers since the World War ----- Well, Mr. Reporter? -------

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Dr. William H. Ross has been telling me about the recent developments in fertilizers.

He says there have been more important developments in the fertilizer business in the past four or five years than in the seventy years preceding.

Mixed fertilizers have not only been cut in cost by new manufacturing processes, but in the past few months improvements have been worked out for making the mixtures more efficient in the field.

Dr. Ross is in charge of the concentrated fertilizer investigations of the Fertilizer and Fixed Nitrogen unit of the United States Department of Agriculture. His laboratory has taken a leading part in this most recent work of making mixed fertilizers more useful on the farm.

As you know, the chief plant foods are nitrogen, phosphorus, and potash. Commercial fertilizers are mixtures of substances containing those plant foods in desired proportions calculated to meet the needs of the plants.

Dr. Ross was showing me what often happens to some of those mixtures of different substances while they are being distributed in the field.

As the mixed fertilizer is shaken around in the hopper, as the machine passes over the field, the individual particles of the different substances used in the mixture tend to separate out according to their differences in size and weight.

The result is that on many a farm, one part of the field has gotten too much of one part of the mixture and not enough of some other part. Instead of a balanced ration, some of the plants may be supplied with too much or too little of one of the foods in the mixture.

To remedy that defect in many mixed fertilizers, the fertilizer laboratory of the Department devised a new process. The fertilizer mixtures have been granulated. In that way, the complete mixture is combined in each and every grain of the fertilizer which flows from the hopper.

Then there is that old trouble of some powdered fertilizers sticking and caking, when damp, Dr. Ross showed me how much more readily the fertilizers flow which had been given the granulating treatment. They do not stick or cake.

This is just the most recent in the great series of fertilizer developments as Dr. Ross sketched them to me.

Of course, farmers have used fertilizers since the very dawn of farming. Wood ashes, and bones, and barn-yard manure, and various other organic materials were our old stand-bys. Even the American Indians used fertilizer. The Pilgrim Fathers learned from the Indians how to boost corn yield by sticking fish scraps in corn hills.

But the commercial fertilizer industry is just about seventy years old. In 1842 it was found that certain materials which had never been used as fertilizer up to that time, could be treated chemically and made into good plant food.

It was found that phosphate rock could be treated with acid to form a material to supply the phosphorus needs of plants.

It was discovered that certain salts found underground in Germany could be used to give plants potash.

Certain other salts found in Chili supplied the needed nitrogen.

That nitrogen, potash, and phosphorus from mineral deposits in various parts of the world were brought together and made into mixtures for sale to farmers as commercial fertilizers.

A second source of supply was developed from some of the waste materials of industry. Cottonseed meal, tankage from slaughter houses, bones, and distillery wastes were used as sources of one or more of the Big Three of Plant foods.

The main sources of supply, however, were still the widely-scattered mineral deposits. They were limited. And as other uses for industrial by-products were found, our fertilizer supply threatened to become scarcer and scarcer, and more and more expensive.

The scientists of the world were worried. Sir William Crookes, famous British chemist, in 1898 estimated that the world's nitrogen would be used up in a few years. Short of fertilizers, he predicted the world's population would overtake its food supply. We were doomed to starvation. He fixed 1931 as the date for the food famine to start.

Well, we are practically there. But instead of failure of our food supply, over-production is our chief worry.

Why is that? Dr. Ross says Crookes just failed to foresee the new developments by which one farmer can now produce as much as half a dozen farmers could produce by the old methods.

These same elements used in fertilizers to feed plants are also used to make high explosives used in war. Scientists, statesmen, and military men were concerned about the world-wide distribution of these essential elements.

We had plenty of phosphate rock to supply our phosphorus needs. But Germany had practically all the known potash beds. And Chili had the nitrogen.

In 1911, the U.S. Department of Agriculture got an appropriation to explore for potash salts in this country. New sources were discovered in California and elsewhere.

We had the phosphorus and potash. But neither this country nor Germany commanded a sure supply of nitrogen.

But there was a third possible source of supply of that most valuable plant food. The very air we breathe is part nitrogen. Plants can't use it in the form it exists in the air. The problem was to convert it into a form that could be used.

Germany had solved the problem, when the war started. Our scientists were working on it. Large plants were successfully developed for producing nitrogen from the air.

That fixed nitrogen is obtained in the form of ammonia, that well-known household cleaning fluid. It used to be expensive. But as made from the inexhaustible nitrogen of the air, it has become very cheap. It is the cheapest and most concentrated form of nitrogen. In the last few years, Dr. Ross says, it has been found that ammonia can be added directly to fertilizer mixtures. That means less cost of the fertilizer, increases the concentration so the fertilizer costs less to ship, and greatly improves the mechanical condition, so it can be distributed more evenly and will not rot fertilizer-bags.

These fertilizer products obtained from the air, Dr. Ross says, act very differently from the industrial wastes which have been used for commercial fertilizers heretofore. The job of his laboratory, he explains, is to study the properties of nitrogen and its reaction with other fertilizer materials. One of the results of that study, is this granulating process for making mixed fertilizers more effective in the field.

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ANNOUNCEMENT You have just heard a sketch of the recent developments in fertilizer manufacture as outlined to your farm reporter at Washington by Dr. William H. Ross, of the Fertilizer and Fixed Nitrogen Investigations of the United States Department of Agriculture.

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YOUR FARM REPORTER AT WASHINGTON Wednesday, November 12, 1930.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

Poultry Interview No. 61: DISEASE AND PARASITE CONTROL, UP-TO-DATE.

ANNOUNCEMENT: And now is the time when we hear again from Your Farm Reporter at Washington. We have asked Your Reporter to bring us today, some timely information on diseases and parasites which affect poultry. He has talked with Department of Agriculture specialists, and now here he is with his up-to-date tips. All right, Mr. Reporter:

Everybody knows, of course, that we have no dependable treatments for certain poultry diseases. You may hear occasional claims to the contrary. But it is no secret that no reliable remedy has yet been discovered for the cure of tuberculosis, or B.W.D., or chronic coccidiosis. These are three outstanding examples. And for all practical purposes you can add to this list also, severe cases of chicken pox and roup.

Now, these are the diseases for which I set out to get up-to-date information. I went to Dr. W. B. Shook, who is in charge of the poultry disease investigations for the U. S. Department of Agriculture; and then to Miss Eloise B. Cram, who is in charge of the work on parasites of poultry. Coccidiosis, you know, is caused not by germs, but by tiny parasites.

Now, let me first of all give you an impression of my own. Every time I talk with these scientists, about diseases and parasites, I am impressed with one fact. And this fact is that back of all our success in preventing poultry diseases are two simple fundamentals. These fundamentals are care and management. You might almost say that good housing, good feeding, and proper sanitation are three cardinal principles in disease prevention.

For example, let's start with coccidiosis. Control of coccidiosis nowadays is based very largely upon sanitation and feeding. And this is why, as Dr. Cram explained it to me:

Science has found out a lot in recent years about poultry parasites and the diseases they cause; and among them about coccidiosis. They've learned, for instance, that coccidiosis occurs in several different forms, and may be caused by one or more of several different kinds of coccidia, as the parasites are called. Dr. Cram tells me that each kind of coccidia affects a different part of the intestines and the diseases caused by different species of these

coccidia may vary greatly in severity and duration. In other words, there are several kinds of coccidiosis and they vary from severe and acute to mild and of rather long duration.

Furthermore, it has been learned that the severity of coccidiosis depends to some extent on the number of parasites which the bird swallows. So a few parasites will usually cause a mild attack; and a large number will usually cause a severe attack. And now here's a very important finding. They've found that fowls commonly become resistant to coccidiosis as the result of an attack. The disease will run only a limited course, and ordinarily if the bird is kept from getting additional parasites, the bird recovers and is free from parasites. There is a certain immunity as a result of an attack, at least to the species of coccidia involved.

Now, this is why control measures fall along two general lines. First, strict sanitation, to prevent infestation, or to reduce the number of parasites a bird will swallow. And second, feeding a proper diet to help fowls build up their resistance.

Speaking of medicinal treatment Dr. Cram remarked that for some parasitic diseases it was at best only a half-way measure.

"For you may be sure," she said, "that even though the parasites within the chicken's body could be destroyed with medicine, large numbers of the parasite eggs or cysts have already passed out of the body in the droppings and have contaminated the soil. Therefore, unless precautions are taken, the chicken will soon pick up new parasitic infections. It seems very obvious, that in such cases curative treatments can be of permanent help, only when they go hand in hand with strict sanitation and other preventive measures.

Now, let's see what Dr. Shook has to say about the matter. I asked him first about B.W.D., or pullorum disease, as some call it.

"Well," he said, "a vast amount of experimental work has been done with B.W.D., as you know. And all of this work has led to one main conclusion: which is, the importance of preventing the infection, found in hatching eggs.

"We know that the disease is incurable. Therefore we must go to the source of the infection, and the source is the infected hen herself. We must eliminate her from the flock if any progress is to be made in eradicating B.W.D."

This is why Dr. Shook suggests that you get your chicks from a hatcheryman who obtains eggs from blood-tested stock only, if it is at all possible. Or, if you raise your own breeding stock, be sure to have the birds' blood tested. In this way, and in this way only, you can eliminate the great majority of infected birds. And thus you are reducing the chance of infection to the minimum.

Now, there is probably no better illustration of the vital importance of good care and management than the case of tuberculosis. It illustrates the utter futility of trying to do anything, unless you do have good care and

management. There's the tuberculin test, for example. It has proved very satisfactory. In fact, it seems to be just about as reliable with poultry as with cattle. It tells you which of your fowls are diseased. And so, it is a very valuable aid. But that's all it is -- an aid to your program of management and sanitation.

Dr. Shook emphasized the fact that poultry tuberculosis is spread largely through infected droppings which get into feed and drinking water. In the later stages of the disease, fowls scatter enormous numbers of germs on the premises.

"A good motto," he says, "is 'Give the Old Hen a Ride.' Remember, that tuberculosis is rarely found in fowls less than six months old. Even up to the age of a year they usually haven't developed the disease sufficiently to spread it. But after that, they may be dangerous. I would say that the most effective step in preventing the spread of tuberculosis is getting rid of the older fowls. Eliminate hens between the second and third year, especially the non layers and those evidencing emaciation. If tuberculosis is known to exist in your flock consult your Veterinarian, as he is in a position to test your birds and give you advice concerning other diseases.

Now, turning to chicken pox and roup, they are a little different. Mild cases WILL sometimes yield to medical attention. But if either of these diseases is very severe, medical treatment is generally quite useless.

In recent years, new preventive treatments have proved successful for both chicken pox and roup. I refer to vaccination, of course. Here's what Dr. Shook thinks about vaccination.

He believes that vaccination for chicken pox will pay poultry raisers under many conditions, but he does not recommend it for all flocks. It is recommended, he says, in an area where chicken pox commonly occurs, or where the disease shows up in a flock year after year.

"The results from vaccination depend largely upon two things," he explained. "First, the use of the proper vaccine; and second, the method of application. So, in this case, a good veterinarian may save you a lot of unnecessary trouble and expense."

The latest thing in prevention and treatment of roup is also vaccination, but with what is known as roup bacterin. This bacterin seems to be valuable in two ways, Dr. Shook said. Birds treated with it in the early stages of the disease seem to escape severe illness, and recover more rapidly. And when it is given to birds which are apparently well, but which have been exposed, many such birds appear to escape infection.

Now, as you have doubtless noticed, I haven't gone into very much detail about the methods of handling these diseases. It is pretty hard to go into detail over the radio. But I CAN tell you where you can find the details, if you want to look further. Write for Farmers' Bulletin No. 1337-F, called "Diseases of Poultry." And you might also write for the bulletin on "Tuberculosis of Fowls," which is Farmers' Bulletin No. 1200-F.

CLOSING ANNOUNCEMENT: This concludes Your Farm Reporter's report on up-to-date methods of combating diseases and parasites of poultry. Let me add that you may secure copies of the bulletins he mentioned free of charge, as long as the supply lasts, by writing either to Station_____ or direct to the United States Department of Agriculture in Washington, D. C. The titles and numbers are "Diseases of Poultry," Farmers' Bulletin No. 1337-F; and "Tuberculosis of Fowls," Farmers' Bulletin No. 1200-F.

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YOUR FARM REPORTER AT WASHINGTON

Thursday, Nov.13, 1930

Federal Farm Board Interview No. 60:

The Livestock National and What It Can Do.

ANNOUNCEMENT: This is the day for your farm reporter at Washington to report to us on our cooperative marketing movement. Federal Farm Board specialists have outlined to him the scope of the new National Livestock Marketing Association and what it can do toward improving market conditions -------- Well, Mr. Reporter.

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The National Livestock Marketing Association has just been running since the middle of July.

However, Mr. L. B. Mann, of the cooperative marketing division of the Federal Farm Board, estimates that this new organization will do in the neighborhood of two hundred million dollars worth of business during the current year.

Of course, some of the members of this nation-wide livestock co-op had been doing quite a sizable amount of business long before they joined the National.

As you know, the National is made up of two types of members. First, there are the terminal cooperative sales agencies, and second, the regional sales agencies.

The cooperative terminal sales agencies have been successfully operated for the past six to nine years. They represent by far the biggest per centage of the business done by members of the new National.

Last year, the fifteen terminal cooperative sales agencies, handled nearly seven million head of livestock, representing over one hundred and seventy million dollars in value. With the addition of the business done by other members in the new set-up, the total this year will exceed two hundred millions.

The terminal associations in the National now operate on markets in Buffalo, New York; Pittsburgh, Pennsylvania; Cleveland and Cincinnati, Ohio; Evansville, and Indianapolis, Indiana; Detroit, Michigan; Chicago, Springfield, Peoria, and East St. Louis, Illinois; St. Joseph and Kansas City, Missouri; and Sioux City, Iowa. They serve livestock producers in the Corn Belt, as well as in the Western States.

The regionals which hold membership in the National include the Texas Livestock Marketing Association; the Iowa Livestock Marketing Corpora-

tion; the Intermountain Livestock Marketing Association, which has headquarters at Denver and includes stockmen in Montana, Wyoming, Colorado, New Mexico, and parts of Utah, and in addition to operating a terminal sales agency at Denver sells the livestock of its members either direct to Corn Belt feeders or moves it to other terminal markets for sale; and the Western Cattle Marketing Association, with headquarters at San Francisco, and a branch office at Los Angeles. The Western sells all its stock direct from producers to packers, and has been in successful operation since 1923.

In addition to to the terminal and regional sales agencies the National Association has an order buying service which is furnished by the National Order Buying Company. It is a cooperative agency the functions of which are to serve the livestock producers both on and off terminal markets. It fills livestock orders for packers on the basis of quality and grade.

What can this great National Livestock Marketing Association, with these types of members, operating on practically all the principal livestock markets, do?

Mr. Mann points out, first, that the National can market livestock in an orderly manner; taking into consideration the supply of and demand for livestock and livestock product.

Second, it can standardize livestock grades, and sell livestock on a grade basis.

Third, the National can eliminate wasteful methods of distribution and unwise speculation.

Fourth, It can centralize the control and selling of livestock in the livestock producers' own agency; and, with a large volume of business under its control, it should be able to do much toward stabilizing prices.

Fifth, Mr. Mann says, it will be able to keep its member agencies as well as the individual members of those agencies closely informed on livestock conditions and furnish them with all possible market information.

Sixth, The National can aid its members in avoiding or controlling surplus production and keep them accurately informed as to any change in market demand.

For example, Mr. Mann suggests, that livestock is an elastic commodity. The amount of livestock, or rather the tonnage of meat can be controlled. The number of head of livestock raised is in the control of the member and also the average weight per animal.

As he reminds us, it is pounds of pork, or beef, or lamb which the housewife buys from the butcher. The amount of meat produced is something over which the livestock producer can exercise a certain degree of control.

With accurate information furnished by the United States Department of Agriculture by means of its livestock surveys, and outlook reports, and the like, Mr. Mann thinks it should be possible to determine whether or not a certain branch of the livestock industry is verging on the brink of a surplus or a deficit. Then by a change of feeding methods, it would be possible to decrease or increase the average weight of the animals on the farm.

Then, seventh, Mr. Mann says it will be possible, on the other hand, to stimulate consumption of meat by advertising and by cooperation with processors and others in an educational campaign. That's another job for the National.

Eighth and last, but by no means least, it should be possible to prevent congestion and gluts on our markets. Glutted markets have often caused drastic declines in prices.

Under the National Livestock Marketing Association plan it should be possible to hold stock back on the farm or at local concentration points, and intelligently divert that stock to different outlets and markets. In that way, Mr. Mann insists, we can avoid that old conditionof "feast and famine" in market supplies, which has been such an important factor influencing the daily fluctuations in prices.

Some of the wide swings of prices from one day to the next Mr. Mann declares, are absolutely idiotic when seen in the light of true supply and demand conditions.

Such a system of handling livestock, should also help buyers and processers by assuring them of a more uniform supply of their raw product.
At the present time, producers have to gamble on the price of feeders, and the price of feed. Sharp changes in price often cause heavy losses.

It is not the extremely big price which is desirable, but a fair price which remains steady over longer periods of time, so that the livestock producers and feeders can be assured of a fairly stable market when they put their money in livestock.

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ANNOUNCEMENT: You have just heard of the scope of the new National Livestock Marketing Association and what it can do as outlined to your farm reported at Washington by Mr. L. B. Mann, of the cooperative marketing division of the Federal Farm Board. This features is presented by Station -------in cooperation with the Board and the United States Department of Agriculture.

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UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

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NOV 17 1930
U.S. Department of Agriculture

YOUR FARM REPORTER AT WASHINGTON Friday, November 14, 1930

NOT FOR PUBLICATION

Speaking Time: 10 minutes

Dairy Interview No. 61: CLEANLINESS AND HEALTH, IN THE DAIRY HERD

ANNOUNCEMENT: At this time we again take pleasure in presenting Your Farm Reporter at Washington, who brings you each week-day except Saturday, timely reports from the laboratories and offices of the U.S. Department of Agriculture, in the Nation's Capital. Today he is going to tell you about his interview with Dr. Fred W. Miller, veterinarian and physiologist of the Bureau of Dairy Industry. His subject is "Cleanliness and Health," as applied, of course, to the dairy herd. All ready, Mr. Reporter...

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"Give a dairy cow a good clean pasture and bright sunshine---- and most of your worries about disease will fade away."

The speaker was Dr. Miller, as we sat in his laboratory on Uncle Sam's dairy experiment farm near Beltsville, Maryland.

"For that matter, the whole question of disease control is essentially simple," he went on. "Why, the two most effective germ-destroyers we have are such simple, everyday commodities that a lot of people even forget they are germ-destroyers. The greatest enemy of germs in the world is sunshine. And next to the sun, bacteria have no more fearful foe than our ancient friends, soap and water."

And now, if you have the ink handy, you might write Dr. Miller's next remark down in red ink. Bear in mind that it comes from an expert, who has had long years of practical experience with animal diseases.

Most of our disease troubles would be avoided," he declared, "if everyone took all the steps necessary to insure cleanliness."

Rather a startling statement, I thought. I told him I'd like to know what he meant by cleanliness.

"Well, I'll admit that cleanliness covers a lot of ground," he returned. "It isn't, of course, quite as simple as it might be. Unfortunately we can't have bright sunshine and clean pastures every day in the year. As someone has said, the weather is always with us. And so, we'll start with the barn.

"Let's begin at the bottom and build up. The rock-bottom essentials of a good dairy barn are that it be clean, well-ventilated and well-lighted. You might not classify ventilation and light as parts of cleanliness, to be sure. But they are necessary to cleanliness.

"You say why is light necessary? Well, it's pretty hard to see dirt in the dark. We use white paint for the same reason---so you can be sure that the barn IS clean."

Now, to get down to details, here are Dr. Miller's ideas of what cleanliness means in the dairy barn.

"Give the cow a good bed of clean straw shavings, or other suitable litter," he says.

"Remove soiled bedding and manure often.

"Construct feed troughs so they may be placed out in the sun, if possible. But if your troughs are stationary, give them a vigorous scrubbing with hot water occasionally.

"Paint the inside of the barn with light paint that does not contain lead, which is poisonous.

"Use separate forks, one for handling hay and another for handling manure and bedding.

"As to floors, concrete and brick are of course most desirable, because they are easiest to keep clean. A little hard scrubbing with hot water and soap will do the work. To insure cleanliness with an earth floor, it may be necessary to remove the dirt, to a depth of several inches occasionally and to replace it with clean earth.

So much for the barn. Now for a little individual attention to the cow.

Groom the cow, says Dr. Miller. Clean the udder with water before milking. And clean your hands with water before milking EACH cow.

"Is that really necessary?" I asked, referring to the last point.

"Well, you're taking chances if you don't," came the reply. "My experience has been that it is a very good thing to do. I have observed cases where cow pox and other sores, and perhaps garget, have spread from cow to cow by the hands of the milker.

Now, a third distinct need for cleanliness is in handling animals that get sick. First of course, they must be isolated from the rest of the herd. And for this purpose Dr. Miller recommends box-stalls, so arranged that no fluids and litter can possibly come in contact with the other animals. Then, scrub these stalls with hot water and soap immediately after the sick cow is removed.

"Remember," he said again, "that parasites and bacteria simply cannot thrive in clean surroundings.

"And this reminds me" Dr. Miller went on "As a matter of cleanliness, do not buy dairy cows unless it is absolutely necessary. Raise them. All of

your careful preventive measures may go for naught if you make a practice of bringing new mature female stock into your herd. It is a gamble, because this new stock may very possibly carry disease germs or parasites.

"And, as a second after-thought, let me make a suggestion. Use your veterinarian as an adviser in helping you to prevent disease. In my opinion, a good veterinarian should be of more value in helping you KEEP the dairy herd healthy, than in treating your animals after they get sick."

"And, after all, the secret of keeping dairy cows healthy is to KEEP them healthy."

Now, there are still such important questions as vaccination and blood-testing to consider-----and Dr. Miller did discuss them. But I see my time is about up. So I'm just going to tell you that you can get information, if you want it, by writing to the U. S. Department of Agriculture, Bureau of Dairy Industry. You may also want these bulletins: "Care and Management of Dairy Cows," Farmers' Bulletin No. 1470-F; and "Udder Diseases of Dairy Cows," Farmers' Bulletin No. 1422-F. These bulletins will be sent to you free of charge, as long as the supply lasts.

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ANNOUNCEMENT: To get these bulletins, simply write to Your Farm Reporter, in care of Station_____, or send a request direct to the U. S. Department of Agriculture in Washington, D.C. The titles and numbers, again, are "Care and Management of Dairy Cows," Farmers' Bulletin No.1470-F; and "Udder Diseases of Dairy Cows, "Farmers' Bulletin No. 1422-F.

UNITED STATES DEPARTMENT OF AGRICULTURE
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YOUR FARM REPORTER AT WASHINGTON. Monday, November 17, 1930.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes. All Regions.

WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS?
(By-produdts Feed Stuffs)
No. 3.

OPENING ANNOUNCEMENT: And now, ladies and gentlemen, Your Washington Farm Reporter is ready to present the THIRD in a series of 4 talks on the subject"WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS?" Last Monday Your Reporter talked about mixed feeds. Today, the Federal Department of Agriculture spokesman is going to talk about reading the labels on the multitude of livestock feeds made from various by-products. All right, Mr. Reporter, you're on the air.

---ooOoo---

Thank you, Mr. Announcer. And now, ladies and gentlemen, since I'm really ON the air today, I might just as well tell you that I've been UP IN the air for several days trying to digest a few of the 1,000 and one points I gathered on this subject of by-products feed stuffs.

It is my purpose today to try to tell you why it is to YOUR advantage to read the labels on all commercial livestock feeds, but my particular subject for this occasion is by-products feed stuffs; therefore, I'll try to confine my remarks to that part of the feeding question.

In order to get the latest dope on commercial livestock feeds made from various by-products it was again necessary for me to hunt up my old New Hampshire friend, Mr. G. L. Bidwell, in the Food and Drug Administration of the United States Department of Agriculture.

I again climbed to the third floor and entered the feed control laboratory under the cover of a smoke barrage heavily ladened with odors entirely different from rose water or Yankee clover.

"Mr. Bidwell," exclaimed the attendant as the smoke screen lifted, "here's that Reporter man again. What'll I do with him?"

"Bring him in here and shut the door. I'll 'tend to him," came the crisp reply from Mr. Bidwell, as he turned off some of the odor-making machines.

"Now, Mr. Reporter," said Bidwell, "we have a whale of a subject today. The roosters would be crowing for day-light tomorrow morning before we could discuss all the livestock feeds made from the vast number of by-products."

"Sounds like BIG BUSINESS," I said.

"It is," replied the speaker. "As a matter of fact, some of our best livestock feeds are made from combination of by-products. Why," he said, "we have grain by-products, cottonseed by-products, linseed by-products, slaughterhouse by-products, and various other by-products from dozens of commercial industries.

"Look at the button on your coat," he said. "The chances are it was made from a KNOT grown in South America. A lot of fine shavings were produced in the manufacture of that button. Those shavings are of course, the by-product of the button, but they are now used in the manufacture of certain livestock feeds."

"Aw----Mr. Bidwell," I said. "You know they don't put shavings in livestock feeds?"

"They do that very thing with this particular shaving," came his positive reply. "Of course," he said, "feed manufacturers don't make a practice of putting wood shavings into commercial livestock feeds, but this particular shaving, according to the Massachusetts agricultural experiment station, is not a bad livestock feed."

Pushing his office chair aside, he said, "Here's an old flax rug on the floor. It was made from flax straw. In the manufacture of flax straw rugs there is left large quantities of a by-product which used to be called FLAX BRAN. Now it is called by the name FLAX PLANT BY-PRODUCTS.

"I mention these rather unusual by-products," said Mr. Bidwell, "to drive home the fact that the by-product field is a large one and covers many, many subjects.

"Cereal by-products," he said, "are often called the BACKBONE of the feeding industry. Such by-products include the common livestock feeds such as wheat bran, shorts, middlings, barley feeds from Pearl barley, oat-mill-feed from the manufacture of rolled oats, various rye feeds, and still others with which perhaps most stockmen are already familiar.

"These cereal by-products," continued Mr. Bidwell, "are found in most mixed feeds and in practically every stock ration.

"A feeder ought to read the label on a feed bag with considerable care to make sure that he gets exactly what he wants. Here, the guaranteed analysis printed on the label is VERY IMPORTANT, since many of the cereal by-products that I have just mentioned are so much alike that their value is well reflected in the analysis.

"Be sure to read the name or names of the by-products that go to make up the feed you are paying for with your cold cash. In other words, KNOW the ingredients in the feed you are using. You are entitled to this information, and can get it by simply reading and studying the label on the feed bag."

Don't be unduly alarmed if your feed contains the names of several by-products. Cottonseed meal, linseed meal, bran, middlings, molasses and many other common feed stuffs are by-products. Some of the very best, as well as some of the worst, feeding stuffs are by-products.

In buying high protein by-products such as cottonseed meal, linseed meal, or peanut meal, pay close attention to the protein content printed on the label. These feeds are generally bought for their high protein content; therefore, note carefully the protein guarantee printed on the label. Many times this discloses why a feed is priced slightly lower than the ordinary run of feeds carrying about the same analysis. It is hardly necessary for me to say that stockmen who make a practice of reading the labels on feed bags know that the lowest priced feed is not always the cheapest nor the most economical feed to use.

In the manufacture of corn starch from corn there comes off large quantities of a by-product. It is called corn gluten meal, and when it has the corn bran mixed with it it is called corn gluten feed. These by-products run from 20 to 35 per cent protein and make valuable dairy feeds.

In the early days of the manufacture of this gluten feed it came mostly from yellow corn which gave it a rich golden color. However, corn colors, like mi-ladies' hat, changed, and manufacturers of gluten

feeds found the sale of their gluten feeds lagging because the color had changed when their supply of corn was white. They promptly added a permitted yellow coloring matter and printed it on the label, and sales picked up again. However, dairy cows made no complaint about the grayish colored feed made from white corn, but feeders liked the yellow color. Soon, however, they learned that the color made no difference and then they were satisfied to accept the regular uncolored gluten feed.

Changing the color of livestock feed reminds me of the farmer who put green glasses on his dairy cows last summer so the dry droughty grass, brown as a baked potato, appeared green and juicy. He did that, Mr. Bidwell said, to make them eat more dry grass. I haven't heard how the experiment worked. However, if you read the labels on feed bags you'll find out if the feed is made from "straight mixtures," or by-products, or if it is colored.

In closing, let me remind you that is't to YOUR advantage to read the label on every bag of commercial livestock feed you buy. The label is YOUR protection. Therefore, read and study it, and then buy the feed best suited for your livestock and for your system of feeding.

There are no Department of Agriculture publications on today's subject. However, you may have a copy of this talk if you want it. Ask Station _____ for a copy of the WASHINGTON FARM REPORTER OF NOVEMBER 17, 1930.

---ooOoo---

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to one of the regular Farm Reporter programs broadcast from Station _____ in cooperation with the United States Department of Agriculture. Drop us a line if you want a copy of the WASHINGTON FARM REPORTER OF NOVEMBER 17, 1930.

UNITED STATES DEPARTMENT OF AGRICULTURE
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YOUR FARM REPORTER AT WASHINGTON. Tuesday, November 18, 1930.

Crops and Soils Interview No. 61: Making Fertilizers Pay Better.

ANNOUNCEMENT: Your farm reporter at Washington has been talking again with fertilizer experts of the United States Department of Agriculture. Today, he reports to us on some of their experiments which point the way toward more effective use of fertilizers in the field ------ Well, Mr. Reporter-------

*****

There is more to this question of fertilizers than is stamped on the bag.

A mixture containing the proper proportions of those three plant foods; nitrogen, phosphoric acid, and potash; does not always produce its best results. A lot depends on how that fertilizer is applied.

Mr. Arnon L. Mehring, of the Fertilizer and Fixed Nitrogen Investigations of the United States Department of Agriculture, tells me that practically all distributors apply fertilizer more or less irregularly. What's more, there is a tremendous difference in crop yields obtained with even spreading of fertilizer and the yields obtained with the irregular drilling done by most types of machines now in common use.

That's not just a general idea with Mr. Mehring. In collaboration with Mr. G. A. Cumings, of the Division of Agricultural Engineering and Mr. W. H. Sachs of the National Fertilizer Association, he tested out twenty-two different types of fertilizer distributors, which were all handled in exactly the same way on three different plantings of cotton in different soils at different times.

Of course, every crop is a problem to itself. But, he says, similar results will, no doubt, be found in the case of other crops. To a greater or less degree, the yield will vary with the evenness of the distribution of fertilizer. The more irregular the distribution the lower the yield.

In these experiments the same kinds of fertilizers were used. The irregularities, Mr. Mehring says, were chiefly those due to imperfections in the mechanism of the different types of distributors commonly used. For instance, many machines built with paddle-wheel or screw devices for pushing out the fertilizer, instead of delivering it in a constant flow, deliver more at one point in the rotation than at another.

In these experiments, Mr. Mehring ran the different machines over a measured course, each foot of which was marked off. The fertilizer dis-

tributed to each of the marked spaces was then collected into tin cans and weighed. At the rate of 250 pounds of concentrated fertilizer to the acre, some of the distributors deposited about ten times more fertilizer in some spaces than in others.

In the actual growing tests, the differences in yield between the machines giving the most even distribution and the type giving the most irregular distribution were startling.

One of the most widely used in the southeastern states was found to give the poorest results. The land fertilized most evenly gave a yield over the unfertilized plots by 41% more than that fertilized by the poorest type machine. This was with ordinary fertilizer mixtures. With concentrated fertilizer the difference in yield ran up to 81 per cent bigger.

In fact, Mr. Mehring figures that with a high-acre-value crop like cotton, just the difference in yield obtained by more efficient distribution on one acre would in some cases more than pay the entire cost of the better type of machine.

In many of the machines tested the fertilizer flows down through the machine by gravity at a rate which varies according to the amount of material in the hopper. Mr. Mehring suggests that any farmer using a gravity type machine should refill the hopper before the fertilizer gets down past an inch or two of the bottom. Otherwise, you may get more fertilizer at one end of the field than the other.

The most even distribution obtained in the tests, was from a type of machine which delivered fertilizer from the top of the hopper; the fertilizer being carried upward and scraped off from the top at a steady rate.

This search for more efficient machines to add fertilizer more evenly, Mr. Mehring tells me is just one of several related lines of investigation, being carried on by the Department of Agriculture. Not only is it important to get an even <u>quantity</u> of fertilizer on all parts of the field, but that fertilizer should be of uniform <u>quality</u>.

Some fertilizer mixtures are made up of materials of different size particles which will not stay uniformly mixed. As the distributor goes over the field, there is a tendency for the coarser particles to separate from the finer. Coarse particles of fish scrap for instance, may tend to accumulate in the hopper while the finer superphosphate or potash particles may run out first. One part of the field may get too much of one and not enough of the other. Proper ration of plant food elements may not be delivered to every part of the field.

However, a new process of granulation of fertilizer mixtures is expected to assist in solving that big problem. The granulation process was worked out in the Department's laboratories, but German fertilizer interests were more prompt to see its possibilities. Mr. Mehring tells me that it is now being widely used in Germany. By that process, the complete fertilizer mixture is obtained in each and every grain of the fertilizer in the bag. Every grain deposited in the field is of uniform fertilizer <u>quality</u>.

Farmers often have a chance to choose between different brands of fertilizer. Everything else being equal, Mr. Mehring says, it is best to choose a homogeneous mixture that will flow steadily. This will help to avoid unevenness in the quality and quantity of the fertilizer distributed in the field.

So you see, we are well on the way toward getting both an even quantity and quality of fertilizer on all parts of the field through the studies being made by our research scientists. But there is another problem which Mr. Mehring predicts will also be solved, as a result of investigations now in progress. That is the question of where to place the fertilizer in reference to the seed.

The old idea was that all we had to do was to apply the fertilizer to the soil, and somehow the crop would get it. Now, Mr. Mehring says, for best results we know we have to apply it so that germination will not be injured by it but yet so that the plant can get it at the proper time. We also know that for most crops fertilizer should not be placed in contact with the seed. But whether the fertilizer should be put under the seed, over the seed, at the side, and how far away we don't know yet. When we do, Mr. Mehring says, it will probably be a comparatively simple matter for manufacturers to devise a machine to deliver the fertilizer in just the right place to get the best results.

Remember those experiments: It pays to fertilize, but it pays much better to get the fertilizer in proper amounts to all the plants.

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ANNOUNCEMENT: Your farm reporter at Washington has just outlined for you the results of his interview with Mr. Arnon L. Mehring, of the Fertilizer and Fixed Nitrogen Investigations of the United States Department of Agriculture. Station_____ is cooperating with the Department in presenting this report.

UNITED STATES DEPARTMENT OF AGRICULTURE
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YOUR FARM REPORTER AT WASHINGTON Wednesday, November 19,1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutes

Poultry Interview No. 62: PRODUCING THAT HOLIDAY TURKEY

ANNOUNCEMENT: This is the day and hour when Your Farm Reporter at Washington brings you his report on poultry. And with Thanksgiving just one week and one day ahead of us, his thoughts have naturally turned to turkeys. He's going to discuss the 1930 turkey situation; sketch a few high lights of the back ground of turkey raising; and bring you a few pointers on the business of producing turkeys. All ready, Mr. Reporter...

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Speaking of historical background, the turkey has it. And I suppose that is why it is hard for most of us to think of turkeys at this time of year as a strictly business proposition. We're naturally inclined to hark back to the early days, when the gobbler and the axe first became acquainted.

A friend of mine was engaged in harking back just the other day.

In the old days, he said, anyone with a rifle and an extra cartridge, could have turkey for Thanksgiving dinner.

Now, he complains, it takes money, or ---- what the Indians used to call "mazuma,"--- and plenty of it.

Well, I agreed that we certainly are a long, long way from the Colonial portion of a turkey for everybody. But at the same time, we who like our Thanksgiving turkeys have something to be thankful for. What my friend said about "mazuma and plenty of it," wasn't so true last year, you'll remember. We had a big turkey crop and the price was within fairly easy reach of the average person. I bought one myself. And this year, there seems to be plenty of turkeys again, at moderate prices.

Here's what the Bureau of Agricultural Economics of the U.S. Department of Agriculture, reported recently on the 1930 situation.

The crop will be slightly smaller than last year's bumper crop, they say, but it will be considerably larger than either the 1927 or 1928 production.

"In general," the report says, "the dry, hot weather of the past season was exceptionally favorable for raising young turkeys. And the proportion of turkeys raised to poults hatched was larger than usual."

Production decreased considerably in what is known as the commercial area, that is, the States from the Dakotas and Texas westward. But this was made up by an increase in the east Central States, largely in the States where the drought was most severe.

Now, right there is another fact that may give us reason to be thankful. Last year also, the main increases came in the Eastern and Southern States. The possibilities in this trend were pointed out to me by Mr. A. R. Lee, poultry husbandman of the Department of Agriculture. As Mr. Lee points out, it indicates that turkey raising can stage a comeback in the East, the land of its birth. Production swung to the West, he said, because the old production methods made it necessary to have lots of room. But since turkeys can now be raised successfully under semiconfinement, there is no such necessity.

"Under present methods turkey raising is much less of a gamble than it used to be," said Mr. Lee, "And I think this is probably the big reason for the renewed interest in turkeys in the last two years."

Probably our increased production is due mainly to three things: Successful production in semiconfinement, artificial brooding, and the tendency toward larger flocks. Two hundred turkeys used to be a big flock, but in some Western States you now see flocks of 3 or 4 thousand turkeys.

"But the force back of all of these practices, the thing that makes them possible, is sanitation. We couldn't get very far, until we learned that turkey diseases COULD be controlled. So sanitation is really the key to successful production of turkeys."

"We've learned , also, that the first and perhaps most important step is a very simple one," Mr. Lee went on. "Keep turkeys away from chickens. Don't let them range on the same land, And don't allow turkeys access to any land on which poultry manure has been spread."

Then he tole me about an experiment conducted at the Pennsylvania Agricultural Experiment Station. A good-sized flock of turkeys was raised, on wire yards, in close confinement. Ninety-three percent were raised to market age.

Here are some figures on that experiment, that may interest you turkey growers. These turkeys ate, on the average, about 57 pounds of grains and mash, besides having milk to drink. The feed cost of raising these turkeys was about 15 cents a pound up to six months of age.

When the turkeys were 6 weeks old they needed only 2½ pounds of grain, plus the milk, to produce a pound of gain. But when they were 6 months old, it took 7½ pounds of grain, plus milk, to put on this pound of gain.

Of course, where turkeys are raised on the range, they pick up considerable feed---and these figures would not apply to all cases.

And speaking of experiments, the Department of Agriculture has begun turkey-raising investigations at Miles City, Montana, with about 700 turkeys. They're trying to learn still more about feeding, breeding, and disease control. Turkeys are being raised both on free range and in confinement.

And by the way, here's another little tip that I picked up from this conversation. Mr. Lee remarked that turkeys raised in semiconfinement will fatten very well under closely confined conditions. But don't try to confine turkeys for fattening when they have been raised on free range, he said.

Now, getting back to the marketing angle again, I asked him if it paid to dress turkeys for market.

He replied that it was a "Yes" and "No" proposition. It depends upon the difference in price per pound between dressed and undressed birds. Remember that turkeys will shrink about 10 per cent in weight in the killing and picking process; and about 25 per cent in the entire process of killing, picking and drawing.

"And don't forget," he reminded me,"that quality in dressed turkeys is one thing that affects the price, very materially. It usually pays to sell only those turkeys which are in good flesh, for the Thanksgiving market. Thin and immature birds can more profitably be held for Christmas and New Year's Day."

Mr. Lee, together with Dr. M. A. Jull, senior poultry husbandman of the Department of Agriculture, has prepared a bulletin which discusses these new methods of raising turkeys. If you'd like to have a copy, write for Farmers' Bulletin No. 1409, called "Turkey Raising."

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ANNOUNCEMENT: You have been listening to Your Farm Reporter at Washington, who has presented his report on "Producing that Holiday Turkey." Farmers' Bulletin No. 1409, which he mentioned, will be sent to you free of charge, as long as the supply lasts. Write for it either to Station____or to the U. S. Department of Agriculture in Washington, D.C.

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YOUR FARM REPORTER AT WASHINGTON. Monday, November 24, 1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutes. All Regions

WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS ?
(Alfalfa Products)
No. 4.

OPENING ANNOUNCEMENT: Ladies and gentlemen, at this time Your Washington Farm Reporter is ready to present the 4th and last in a series of 4 talks on the subject "WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS?" Last Monday Your Reporter talked about by-products feed stuffs. His subject for today is ALFALFA PRODUCTS. Mr. Reporter-----you're on the air.

--ooOoo--

Thank you, Mr. Announcer. And now, ladies and gentlemen, it's up to me to tell you what I found out about commercial livestock feed known as ALFALFA PRODUCTS.

I've already told you in previous talks about cottonseed meal, mixed feeds, and by-products feed stuffs. And now I'll tackle the last subject in the series by asking you this question:

"WHY READ THE LABELS ON ALFALFA PRODUCTS?"

Of course, you can't talk back through your radio receiving sets, so I'l try to answer that question for you.

In order to get the latest information on this subject of alfalfa products I again called on my feed friend, Mr. G.L.Bidwell, in charge of the feed control laboratory in the Federal Food and Drug Administration.

"Alfalfa," he said, "is one of the important forage crops of this country. It is UNIQUE among the forage crops because it furnishes enormous amounts of feed in the form of hay, and on the other hand, it is ground and sold in sacks in competition with cereal by-products and other feed stuffs and is also as an ingredient of mixed feeds."

"Mr. Bidwell," I interrupted. "Are we going to cover the entire alfalfa field in this talk?"

"Oh, no," he said, "we'll just take about half the field and leave the rest until it ripens a little more. " Of course, that suited me, so

he loaded his pipe, leaned way back in his chair, and opened up as follows:

"Livestock feeders are interested mostly in alfalfa products produced by GRINDING ALFALFA. Now, naturally, the quality of alfalfa differs a great deal. Where it is grown has a lot to do with the quality. The stage at which it is cut also affects the quality. The conditions of curing and the care and management during curing all influence the quality.

"Alfalfa is ground into a COARSE meal is sometimes called 'chopped alfalfa.'

"Some years ago, certain manufacturers of alfalfa meal started in to separate and pick out the alfalfa leaves, grind them up separately, and sell the product as 'ground leaves.' Naturally feeders began to use this new alfalfa product. As a result of this experiment, ground alfalfa leaves are now a very valuable ingredient of certain poultry and hog feeds.

Some mills take out from 10 to 15 per cent of their product in the form of leaves. Others go as high as 40 or 50 per cent. Those that try to take out such a high percentage naturally get other material along with the leaves. Therefore, as a general rule, the richest meal is made from the purest selection of leaves containing the smallest amount of stems and other non-leafy products."

I wasn't grinding quite as fast as Mr. Bidwell was feeding so I said, "Wait a minute 'till I can catch up. In the meantime tell me if there are any by-products produced in the manufacture of alfalfa-leaf meal."

"Sure," he said, "In the manufacture of alfalfa-leaf meal there is a by-product produced and sold as alfalfa stem meal.

"At the present time we find 4 alfalfa products on the market."

"What are they?" I questioned.

"First," he said, "alfalfa-leaf meal containing only such quantities of stems as is unavoidable in good commercial practice.

"Second, a meal containing more leaves than alfalfa meal, but more stems than a good quality leaf meal.

"Third, alfalfa meal, defined as 'The product obtained from the grinding of the entire alfalfa hay, without the addition of any alfalfa stems, alfalfa straw or foreign material, or the subtraction of leaves. It must be reasonably free from other crop plants and weeds.'

"Fourth, and last, alfalfa STEM MEAL which is a residue obtained in the manufacture of the first two qualities mentioned a moment ago.

"Alfalfa-leaf meal is the highest in protein and alfalfa-stem meal is naturally the lowest in protein content."

Now I'm going to give you people ONE paragraph that is really the text of this series of 4 articles on read-the labels. Here it is.

"The feed control officials of various States as well as the Federal Government are all trying to have these various commercial livestock feed products correctly labeled. That's for YOUR protection, Mr. Feeder. However, all their efforts will go for naught unless YOU read the labels on the bags of commercial feeds that you buy. Don't stop at just reading a part of the label----read it all. Don't even stop at reading the whole label--- study it. Don't be satisfied with reading the guaranteed analysis. Only by reading and studying the WHOLE label can you be assured of getting a product that you want."

Mr. Bidwell was again feeding my mental mill a little too fast so I had to call "time out" while I tightened my pulling belt and caught up. When my mental grinder cleared up and the dust settled I said, "Mr. Bidwell--- are we through talking about alfalfa products?"

"Long ago,"----he said teasingly. "We're now summarizing the entire series of 4 talks on this subject of WHY READ THE LABELS ON COMMERCIAL LIVE* STOCK FEEDS."

"Oh---" I said. "I guess I had better tighten up my mental belt a little more, and try to keep up with what you're saying. Try me again."

"All right," he said, "I will, but be sure you keep up this time.

"We must realize that feeds are bought and used for various purposes and that some feed stuffs are more valuable than others. We must also realize that even the LESS VALUABLE feeds have their LEGITIMATE place in the livestock feeding schedule. Practically all feeds manufactured and sold today are useful and have an economic value. Some, naturally, more so than others. One particular feed is not generally fitted for every feeding purpose. For instance, if you have dairy cattle----it's not economical to buy feed for maintaining stock. If you are fattening cattle, dairy feed would probably not be adapted to your use---

"There are two ways to buy commercial livestock feeds.

"First, if you are now using a feed that produces the economical results you want-----STICK TO IT.

"Second, when you find it desirable to change feeds----be sure to READ AND STUDY THE WHOLE LABELS on the new feeds.

"These feed labels may not tell you all you want to know, but what they do tell you, Mr. Feeder, is important to your success and to the success of your financial friend---the POCKETBOOK."

That, ladies and gentlemen, closed the 4th and last personal interview with Mr. G. L. Bidwell in the Federal Food and Drug Administration on the subject "WHY READ THE LABELS ON COMMERCIAL LIVESTOCK FEEDS." There are no available publications on this subject but you are welcome to the 4 talks that have been given. Ask Station____for copies of the Washington Farm Reporter of November third, tenth, seventeenth and twenty-fourth, and remember to read the labels on the next livestock feeds that you buy.

--ooOoo--

CLOSING ANNOUNCEMENT: And so we close another one of the Washington Farm Reporter programs broadcast from Station____in cooperation with the United States Department of Agriculture. Drop us a line if you want copies of the Washington Farm Reporter programs for November third, tenth, seventeenth and twenty-fourth.

--ooOoo--

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YOUR FARM REPORTER AT WASHINGTON. Tuesday, November 25, 1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutes

Crops and Soils Interview No. 62: Potato Fertilizers

ANNOUNCEMENT: Your farm reporter at Washington is now ready to report again. This time he brings us word of the wonderful work being done to find the best fertilizer mixtures for potatoes. -- Well, Mr. Reporter, what did those United States Department of Agriculture experts tell you about spuds ---- and fertilizers? ----

****

As you probably know, this matter of potato fertilizers is quite an item.

Our commercial potato crop is by long odds our most valuable truck crop. It is worth somewhere in the neighborhood of three hundred and fifty million dollars a year. But it costs money to raise potatoes.

Mr. B. E. Brown, of the Soil Fertility Investigations of the United States Department of Agriculture, tells me, that taking everything into consideration, it is very likely potato growers spend more than forty million dollars a year on fertilizers.

Of course, that is in all the commercial potato sections of the country. Potatoes are grown in widely scattered regions, and on many different kinds of soil.

Naturally, different kinds of soil have different proportions of the chief plant foods in them. For that reason, they often need somewhat different mixtures of added food in the form of fertilizers.

Mr. Brown tells me the U. S. Department of Agriculture in cooperation with State Experiment Stations, is now running some twenty experiments in potato growing on different soil types in Maine, New York, New Jersey, Virginia, and Pennsylvania. The Potato Association of America at its last meeting at Des Moines, Iowa, urged the extension of these investigations of other important potato growing sections.

One of the main purposes of these experiments is to find out how to fit the fertilizer to the soil needs for the best growing of potatoes, on each type of potato land.

Practically, all potato lands, Mr. Brown says, need a complete fertilizer. That is they are most likely to be lacking in the big three of plant foods; nitrogen, phosphoric acid, and potash. He tells me that these potato investigations have already shown that potato growers in some sections fail to use enough fertilizer for the most profitable yields. In no section has it been found that farmers use too much. As Mr. Brown puts it, "The potato plant is a glutton for food."

Nitrogen is especially important in giving the crop a quick start by stimulating the growth of stems and leaves. Tuber development and starch formation is more or less proportional to leaf development. Nitrogen promotes leaf growth and leaf growth promotes potato growth. Lack of nitrogen shows up, Mr. Brown explains, by the vines turning a lighter green than usual. In some cases a yellow shade develops. As a result, the plants fail to grow as well as they should. If the lack goes on for long, the plants stay stunted, and yields are less than from a well-fed crop.

And in case of lack of available nitrogen, no amount of available phosphoric acid and potash will make up for that lack. One plant food can't be substituted for another. Each has its own place in the diet of the potato plant.

For crops in general phosphoric acid is helpful in promoting root development in the early stages and seed or fruit production during the final stages of growth. It is helpful, especially in the cold, wet season in hastening maturity.

Potash not only has a good influence on the quality of potatoes, but plants which get plenty of potash are thought to be less susceptible to attacks of disease and are said to have better cooking and keeping qualities. Both potash and phosphoric acid tend to counteract the effect of too much nitrogen.

But potato plants on different types of soil need different percentages of these different plant foods. There is no "shot-gun prescription" for a complete fertilizer to fit all types of potato soils. The Department is trying to find the best mixture in each case.

Then too there is this big question of cost. Organic materials such as tankage and fish meal which were once the cheapest sources of nitrogen are now the most expensive. Fertilizer manufacturers have turned more and more to inorganic materials, especially the cheaper nitrogen materials obtained by manufacture from the nitrogen in the air.

These newer materials have more plant food in less bulk. In the last few years potato growers have been urged to use concentrated fertilizers which have two to three and even four times the strength of ordinary fertilizers.

In some potato growing sections, there seems to be a big advantage in concentrated or high-analysis fertilizers in the way of savings on freight, and bags, and handling, and storage, and the like.

The new fertilizers are stronger and contain less impurities than the old materials. They act a little differently in the field. Mr. Brown tells me it is imperative that potato growers understand how to use these fertilizers and know their effect on the yield.

For that reason, in these government experiments, potatoes are being grown in fields treated with ordinary high-quality fertilizers side by side with other fields of the same kind of soil in which potatoes are being grown with concentrated fertilizers.

Mr. Brown says that the use of fertilizers for potatoes has been increasing for the past twenty-five years. And he assumes that more and more fertilizers will be used in the future. It is well known that the use of fertilizers is expanding in sections where they used to be considered much less necessary than they are now. It is especially necessary for potato growers in the newer fertilizer-consuming sections to know how much fertilizer to use.

And remember that old saying; "The proof of the pudding is in the eating." That applies to potato pudding, as well as any other kind. There is need for more knowledge of the influence of different fertilizers and different soils on the cooking qualities of potatoes. It is generally thought that potash plays a big part in improving the quality. But, as Mr. Brown points out, there is a lot we need to find out about feeding potato plants before we can determine definitely many of these questions, not only about what fertilizers to use, and how much, but where to place the fertilizer with reference to the potato seed-piece, and how well to mix it with the soil.

Certain potato diseases such as common scab and others are closely associated with soil conditions. Such diseases cause considerable financial loss and we need to know more about the effect of fertilizers and disinfectants to prevent such soil carried diseases.

The answers to these and many other questions are of high importance to every potato grower. More efficient use of fertilizer means money in his pocket; for the fertilizer bill represents a large share in the cost of potato production.

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ANNOUNCEMENT: Your farm reporter at Washington has sketched for you some of our potato fertilizer problems as outlined to him by Mr. B. E. Brown, of the Soil Fertility Investigations of the United States Department of Agriculture. Station ------ presents this report in cooperation with the Department.

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YOUR FARM REPORTER AT WASHINGTON Wednesday, November 26, 1930

NOT FOR PUBLICATION

Speaking Time: 10 minutes

Poultry Interview No. 63: THE POULTRY AND EGG SITUATION

ANNOUNCEMENT: Again Your Farm Reporter at Washington presents another of the series of reports which Station_____brings you each week-day except Saturday, at this hour, through the cooperation of the U.S. Department of Agriculture. Today Your Reporter tells you about his interview with Mr. Roy C. Potts, chief of the Division of Dairy and Poultry Products in the Bureau of Agricultural Economics. He is going to sketch for you a picture of the present poultry and egg situation, as Mr. Potts sketched it for him. All ready, Mr. Reporter.....

****

This being the day before Thanksgiving, I had intended to play a Pollyanna role and tell you things to be thankful for.

My intentions were good. But I find that it is pretty hard to be a Pollyanna and still keep one eye on the facts that I learned from Mr. Potts.

It seems that it is the same old story: Too many eggs, and too many hens laying eggs.

The picture is not all black, of course. Anyway, it is no darker than it has been---and in some respects, it is brighter. Perhaps we ought to be thankful for that----this being the day before Thanksgiving.

For instance, a very bright spot has been the unusually heavy consumption of poultry this year. Up to November 1, approximately 13 per cent more poultry was consumed in the principal markets than during the same 10 months of 1929. This has naturally been a big help. Statistically, at least, it has left the poultry markets in a better position than they were in a year ago.

But the fact remains, that besides being slightly better, on paper, than they were a year ago, the poultry markets are also considerably better off than the egg markets.

From this point on, the facts give consumers much to be thankful for; producers, not so much.

The reasons for this are not hard to discover; and doubtless you are already familiar with them. As Mr. Potts outlined them to me, here they are:

There are heavy supplies of both shell and frozen eggs in storage.

Current receipts at the principal markets are running only slightly less than at this time last year.

Egg consumption is still far from satisfactory.

So there seems to be little encouragement in the egg market, until present storage stocks are very materially reduced.

Now, let's have a look at the poultry situation. Heavy consumption has helped, but still, little improvement is in sight----at least for the remainder of this year. To offset increased consumption, demand for poultry for storing purposes has been lighter this fall than a year ago.

"Except for seasonal changes," said Mr. Potts," it seems unlikely that any material rise in the level of prices for poultry products will occur until the general level of commodity prices rise. That is, unless there should be a definite decrease in total numbers of poultry on farms."

Well, this brings us right back to the old story again: Too many eggs, and too many hens laying eggs. In a nutshell, this seems to be what is wrong with the poultry situation today.

There is some indication, Mr. Potts said, that farmers are responding to the situation by changing their plans. Last winter and spring there was a very definite intention to expand the laying flocks of 1930 and 1931. But the decline in egg prices last spring, and the low prices that have prevailed since, have apparently caused many farmers to reconsider these intentions.

There is one peculiar thing about this situation. Let me give you some figures from the records in Mr. Potts' office.

These figures are compiled from the reports of farm-flock reporters on the first of each month. And they tell the following story.

During the first half of 1930 the number of layers in farm flocks averaged from 3 to 5 per cent larger than during 1929. On June 1, however, the number was only 2 per cent more; on July 1 about 1 per cent more; and

on August 1, just about the same, or slightly less, than in 1929.

All this is in line with what seemed to be a trend toward reducing production.

But now, on September 1 the number of layers gained slightly over the 1929 figure; and on October 1, 1930, the number was about 6 per cent greater than on October 1, 1929.

Obviously, this is a very sudden increase, and it might well be an alarming one. What is the explanation?

Well, to find the answer Mr. Potts takes us back to the spring of 1929. Hatchings were rather late that season. On the contrary, hatchings were unusually early last spring, the spring of 1930.

And so, this October 1 gain, may be due to an unusual proportion of young pullets beginning to lay in September----as a result of the early hatch.

Mr. Potts declares it does not seem probable that this gain over 1929 will be permanent. That is, the gain may be balanced by a slump below 1929 figures, later on.

However, he pointed out that the real significance of the October increase cannot be told with certainty, until the full size of the laying flocks is shown by the returns for January 1.

Now, before I give you Mr. Potts' summary of the poultry and egg outlook, let me tell you his view of the feed situation. It can be told in a few words. Low poultry and egg prices do not compare very favorably with high corn prices. So, if the usual amount of corn is fed, this throws the feed cost rather radically out of joint with cash returns.

On the other hand, the price level of wheat, bran and other small grains, is more nearly on a par with the price level of eggs and poultry. Thus, he believes it is good business to substitute these cheaper grains for corn, as much as possible. Under present conditions he believes that farmers can, generally speaking, profit by feeding more wheat.

Now, to summarize the outlook for prices. Here's what Mr. Potts says about poultry:

"No general improvement in poultry prices is anticipated during the remainder of the year." "This is due to fairly large supplies still on farms; to the generally reduced buying power of the consuming public; and to the fact that their unprofitable experience last season has led storage operators to be very conservative in storing poultry this fall".

"Conditions in 1931, however, should show some improvement. Any marked improvement will depend upon improvement in general business conditions."

Well, how about eggs?

"Present indications do not foreshadow a very strong egg market for the early part of 1931," says Mr. Potts. "Dealers who stored eggs last spring have lost considerable money; and so the demand for eggs for storage next spring is likely to be conservative. Commercial hatchery operators also experienced an unprofitable season. And there is also the possibility that hatchings in the spring of 1931 may be considerably lighter than in 1930. If that happens to be the case, of course more eggs will be available for consumption."

"On the other hand, this cloud may have a silver lining after all. But the silver lining still has to develop. It lies in the possibility that continued low egg prices may stimulate severe culling of flocks. This would naturally reduce the production of eggs during the spring laying season. Right now this is only a possibility; but it is a very desirable possibility."

Again, it seems, we are back to the same old story: Too many eggs, and too many hens laying eggs.

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ANNOUNCEMENT: Your Farm Reporter at Washington has just brought you a timely report on the poultry and egg situation. Remember that you can get copies of poultry and egg reports free of charge, if you want them. Simply write to Station_____, or to the Bureau of Agricultural Economics, U.S. Department of Agriculture, in Washington, D. C.

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YOUR FARM REPORTER AT WASHINGTON. RELEASE Thursday, November 27, 1930

Federal Farm Board Interview No. 55: Poultry Co-op Lays Big Nest Egg.

ANNOUNCEMENT: What are the farmers' co-ops doing? Your farm reporter at Washington has been finding out from specialists of the Federal Farm Board. Today he is going to report to us about one of the recent developments among poultry co-ops. All chicken, and turkey, and egg men should be interested in that. In fact, all co-op members and prospective members generally want to know about developments ---- Well, Mr. Reporter -----

****

The Federal Farm Board has been encouraging co-ops in various lines in all parts of the country.

That is one of the Farm Board's big jobs -- to encourage farmers' associations.

As you know, the Board has lent a helping hand here and there. That help has taken a different form under different conditions. There are those big national associations formed by farmers co-ops.

Now then, Mr. A. Willardson in charge of the Poultry Products Section of the co-op division of the Federal Farm Board, has just been telling me of another case in which the Board is helping a poultry co-op in its expansion program. By a substantial loan, it is making it possible for the co-op to make its services available to a greater number of farmers.

The co-op is the Poultry Producers of San Antonio, Texas. It will handle chickens and eggs and turkeys, from southern and south central Texas. Last week I told you about how the Farm Board is helping the turkey co-ops in Colorado, and Utah, and Idaho, and Montana, and parts of Oregon and California, to develop one overhead turkey marketing organization for the co-ops of the Mountain States.

That is a region where turkey raising has made tremendous strides in the last few years. That big regionsl co-op is expected to handle a large number of turkeys. Looking forward a bit, Mr. Willardson suggests that

eventually the Land-o-Lakes Creamery Association, which has built up quite a turkey selling business in its territory, and that newly planned Mountain States association, and the expanded Poultry Producers of Texas will agree together on a national sales program which will help in the sound merchandizing of turkeys from our vast western turkey raising territory.

Texas, of course, is the chief turkey producing state in the Union. Texas produces far more turkeys than any other State. But the Texas producers have been at a decided disadvantage in marketing their turkeys. The climate is not so favorable for shipping around Thanksgiving and Christmas, as it is in more northern States. Most of these turkeys go to New York and other eastern markets, but if they are not properly cooled at the time of dressing, they may not arrive at the market in condition to command the best prices.

It is often warm in Texas at turkey time when many northern producers have plenty of natural refrigeration. For that reason, Texas turkey farmers need artificial refrigeration but heretofore they have not always been able to get adequate refrigeration facilities.

This Poultry Producers Association of Texas has been in existence since March 1928, and its operating expense has been less than two cents a dozen for the eggs it has sold for its members. Owing to its handicaps, it has never operated as a poultry and turkey plant.

Now, the Federal Farm Board has agreed to make a loan to this organization, which with capital raised locally, will enable it to acquire a first-rate refrigeration plant, and to enter poultry and turkey marketing for a greatly increased membership over a much wider area. The territory covered represents about one-fourth the chicken population of the State. This fall, Mr. Willardson estimates, that this poultry co-op will handle a large volume of turkeys, beside the poultry and eggs they will handle all through the year. He figures that the association will serve about twenty-five hundred producers its first year of operation under the expanded program.

It is also planned to expand the egg marketing by developing outlets for eggs in Mexico. The increased facilities will enable the co-op to handle eggs to better advantage. They will be graded, and cooled, and shipped out in refrigerator cars.

This association will inaugurate better grading of turkeys, and will pay on the basis of grades. That, is expected to result in greater care by members to market their mature birds, and to prepare them better for shipment.

When turkeys are not sold on the basis of grades, there is little incentive for producers to use the proper care in dressing them for market. As a result, immature, poorly finished birds, often carelessly picked and

full of pin feathers and insufficiently chilled before starting, have heretofore reached the market and tended to bring down the price paid for the better birds.

With its splendid new cooling facilities and grading program, the Texas co-op plans to raise the quality of its products.

Mr. Willardson points out that this Texas poultry association is moving forward on a sound business basis. It is going to set up adequate reserves, to retire its indebtedness and to supply working capital for emergency needs.

Some associations don't do that. Many failures in cooperative effort have been attributed to the lack of reserve funds for the proverbial rainy-day.

In the case of the Texas poultry producers organization each producer on joining the association pays ten dollars to be used as operating capital. The association has a board of directors made up of one director from each county in which there is membership and six directors at large. They meet each month and go over the business of the association.

The association is a non-stock, non-profit type of organization formed to comply with the Capper-Volstead Cooperative Marketing Act. That is, it is owned by farmers and it is controlled by farmers, and so constituted that the control will stay in the hands of the farmers. It has the support of the State extension forces and the Texas A. and M. College, as well as the financial and other help of the Federal Farm Board and local banks.

Mr. Willardson says that the whole future of cooperation between poultrymen in Texas largely depends upon the success of this enterprise.

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ANNOUNCEMENT: You have just heard a brief outline of the recent developments in cooperation among poultrymen in Texas. Each week your farm reporter at Washington presents some phase of the movement toward closer cooperation by the forward-looking farmers of our great agricultural industry. Station _____ presents these developments in cooperation with the Federal Farm Board and the United States Department of Agriculture.

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YOUR FARM REPORTER AT WASHINGTON Friday, November 28, 1930

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Speaking Time: 10 Minutes

Dairy Interview No. 63: WHAT'S HAPPENED IN THE DAIRY INDUSTRY?

ANNOUNCEMENT: This is again the day and hour when Your Farm Reporter at Washington reports to dairy farmers. He brings you at this time another look into the economic situation, with an answer to the question, "What has really happened in the dairy industry?" This report is a result of his interview with Dr. W. J. Spillman, well-known veteran economist of the U. S. Department of Agriculture. Now, Mr. Reporter, let's hear it...

*****

Dr. Spillman's analysis of the present dairy situation recalls to me another situation and another analysis, which I once encountered in my own home community.

Times were fairly good then, and there was little thought of change and adjustment. Many folks seemed to feel that fine opportunities were knocking in the dairy business; but if that were true, the knocks went unheeded.

One day I happened around to the favorite street corner of my friend Jim Weaver, retired farmer. Weaver was a wise old owl, and we used to call him "the village philosopher".

"Tell me, Jim," I said. "Why don't more farmers around here milk cows?"

"Well sir," Jim replied, "If you want the answer in plain English, just remember this: Most people milk cows when they can't find any other way to make a living."

Now, that was quite a few years ago. Bur old Jim Weaver's remark came back to me like a flash as I sat in Dr. Spillman's office, reviewing with him the present dairy situation.

Dr. Spillman began with a lesson in farm geography. He stood before a large wall map of the United States and struck off an imaginary straight line from Washington, D. C., right through to Kansas. He waved his pencil to indicate a region lying on both sides of this line, for a considerable distance. Then he drew imaginary rings around certain parts of the Corn Belt,--- sections in the Great Plains and Intermountain country--- and sections along the Pacific coast.

"Now add to these regions that part of the Cotton Belt lying east of Texas", he said. "And what have you?"

"Well, you have a composite picture of great areas which have two important things in common. First, they are made up largely of small farms. And second, the main source of cash income on a very considerable number of these farms is either wheat, or cotton."

"Now, let's examine this composite picture more closely. What is happening? Well, it is simply what everybody knows has been happening for several years. Wheat and cotton have been so low in price that tens of thousands of growers have been unable to rely upon them for a decent living. Naturally these farmers have been compelled to seek new sources of cash income.

"And what have they turned to? Well, a few of them have turned to vegetables and fruits, peanuts, soybeans, tobacco, and other miscellaneous crops. But in the sum total of readjustment, these enterprises have been little more than a drop inthe bucket. Thousands upon thousands of farmers have done what seemed to be the most logical---and easiest---thing, and begun to milk cows.

"In regions where farms are small, and where wheat and cotton have been depended upon to supply the ready cash, milking cows became a practical NECESSITY."

Dr. Spillman emphasized that word necessity. Well, what was it Old Jim Weaver told me, years ago? "People will milk cows when they can't find any other way of making a living." Perhaps Jim was more of an oracle than we used to credit him with being.

At any rate, his rule---if you can call it a rule---seems to have worked out.

The result is well-known. To quote Dr. Spillman, the number of dairy cows in the United States has increased rapidly---more rapidly than the demand for dairy products. Then, of course, came the depression in consumption, which has still further widened the gap between supply and demand.

Production went up and consumption came down; and such a performance as this means only one thing, in any language. For present purposes, it means "enough said."

However, there does remain a lot to be said---and done--- about the future, according to Dr. Spillman.

What is going to happen next year, for instance, if we get good pastures and plenty of feed once more? We have so many cows on hand now, that there seems to be only one reasonable answer to this question. Unless something sharply unexpected happens, we're going to be producing too much milk.

"There is the probability, of course, that consumption will come back to normal," Dr. Spillman pointed out. "And there is also the possibility of increasing consumption above our previous normal. This will help--- but by itself, it will be very, very little help indeed.

"The feature of the situation that cries out for action is that we have too many cows.

"It seems clear that the number of milk cows must be reduced before dairy farmers of the United States can hope to again enjoy the price levels that they have been enjoying up to this year.

"Obviously," Dr. Spillman went on, "there are two main ways by which we can remedy the situation. One is to cull dairy herds very closely. The other is to quit raising so many heifer calves.

"If all farmers in the United States would cull their herds closely enough that would remedy the situation," he declared. "But even if that were possible, we'd need also to cut down on breeding operations. Now that calves are cheaper, the incentive to raise calves is not so great as it was. And there is every reason, otherwise, why we should reduce the number."

. Now, let me close by reading to you two paragraphs from the latest outlook report on the dairy situation, prepared by the Bureau of Agricultural Economics. I quote from this report:

"Substantial increases in numbers of milk cows and heifers are now taking place. This indicates, that when disturbed conditions due to the drought and the business depression shall have passed, the dairy industry is likely to find itself over-expanded, necessitating further readjustment to consumer demand for its products."

Now, here is the other paragraph. Again I quote:

"Prices of dairy products are expected to advance moderately during the fall, prior to the usual seasonal drop in midwinter, but to remain at a lower level than has obtained during the last few years, owing to the prevailing tendency toward expansion of the industry. If business conditions improve, there will be a tendency for consumer demand to increase.

Conditions in the dairy industry, however, such as increasing numbers of cows, may be expected to prevent any substantial strengthening of dairy prices."

Well, good-day, everybody. See you Monday.

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ANNOUNCEMENT: You have been listening to Your Farm Reporter at Washington, who has just brought you a report on " What's Happening in the Dairy Industry." Your Reporter will be back at the microphone at Station _____ Monday at this same hour, with another of his reports for growers of livestock.

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YOUR FARM REPORTER AT WASHINGTON. RELEASE Thursday, November 20, 1930

Federal Farm Board Interview No. 61: The New Turkey Regional Co-op.

ANNOUNCEMENT: What are the new developments in the great farmers' cooperative marketing movement? Your farm reporter at Washington tries to find out for us from the specialists of the cooperative division of the Federal Farm Board. In his report today, he is going to talk turkey. ------ Go ahead, Mr. Reporter. ----------

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The turkey growers of the Northwest got together last month and started a big regional co-op.

Mr. A. Willardson, poultry specialist of the Division of Cooperative Marketing of the Federal Farm Board, tells me that the Northwestern Turkey Growers Association is the first regional organization formed by turkey growers in this country. It will include growers in the States of Colorado, Utah, Montana, Idaho, Nevada, Oregon, and Washington.

Mr. Willardson estimates that the Association will handle about seventy per cent of all the turkeys in the above mentioned states.

Heretofore, each of the States in this new regional has had a number of small turkey pools. Some states have even had a turkey pool for each turkey producing county. A number of those pools have only been operating on annual contracts. They have not had a cooperative set-up, or even capital enough to finance the grading and packing of the turkeys.

They have been in the habit of submitting the volume of turkeys entered in the pool to representatives of the trade for bids. And, Mr. Willardson tells me, that system has not always worked so well. In many cases they have had to accept the highest bid for their turkeys, and often that highest bid has been out of line with the actual market prices. There has been no uniform system of grading and packing. Some of the pools have not had enough money to buy packing boxes. The dealers have bought the turkeys and then graded and packed them themselves.

This matter of grading and packing seems to be the main point at which the new regional co-op will attack the marketing problem of its

turkey raisers. Under the new system the turkeys from all the members will be graded and packed and marketed under a uniform brand.

But let's hear what the new system is like. To make up this big Northwestern Turkey Growers Association, Mr. Willardson says, the small pools have been consolidated into district and State associations. So far, there are not more than two associations in any of the States.

As he explains it, in some States there is just one State association, but in others, on account of geographical reasons, it is not feasible to have all the turkey growers in one association, and so the turkey growers of different sections of the State have formed district associations.

The turkey farmers have a contract with the district or State association. The district or State association, in turn, has a contract with the Northwestern Turkey Growers Association.

Here is the way the turkeys are handled. The farmers kill and dress and deliver them to certain receiving stations designated by the State or district association.

The big job of the district association will be to actually grade, and pack, and load the turkeys for shipment on order from the regional. The regional, which has headquarters at Salt Lake City, will do the actual selling of the turkeys.

That, of course, involves a good deal more than you might think from this simple outline of the set-up of the organization.

In the first place, Mr. Willardson explains that one of the objects of the Northwestern Turkey Growers Association will be to improve the breeding stock and the quality of the turkeys, and encourage the growers to hold the birds to maturity. One of the troubles with turkey marketing has been that many turkeys have been forced on the market before they were really ready for market.

In many instances, birds which would have graded "No. 1" or "Fancy" if they had been left on the farm until they were mature, well rounded out and ready for market, grade out as "No. 2" which usually brings ten cents a pound less.

This new regional association also hopes to eliminate as much speculation as possible on the part of the buyers. It hopes to develop such standards of grading and packing by its district and State members, that the turkeys sold by the association will inspire confidence in the trade.

The Northwestern Turkey Growers Association will get information on production and marketing for its member associations and they in turn will keep the individual turkey growers informed as to market supplies and demand and methods meeting that demand.

This regional is the first wide-spread turkey association. There will probably be others. No doubt, Mr. Willardson says, this regional will be tied into a National with other turkey or poultry associations.

Eventually, through such regionals and National, he predicts that growers will be able to stabilize the production and marketing of turkeys and be able to gauge production so that it will be more in line with the potential demand for turkeys.

On the other hand, the plan is to carry on an advertising program to stimulate consumption of turkeys.

All this seems to be an ambitious program for merchandising birds most of which are forced on the market for the Thanksgiving and Christmas holidays. But, as Mr. Willardson explains it, the bird which has heretofore been a synonym for Thanksgiving may become more of a year around meat-product, with consumers induced to consider turkey a more regular part of the diet and turkey raisers having something to be thankful for at all seasons of the year.

The Northwestern Turkey Growers Association is set up on a business basis. Its affairs will be handled in a business-like way. There will be certain deductions from proceeds of sales for necessary reserves and working capital.

However, Mr. Willardson says, it is so set up that it it needs financial assistance from the Federal Farm Board, it will very likely be able to get it.

The Board of Directors of the Northwestern consists of men from each State who have had years of experience in marketing turkeys, poultry, or poultry products, in cooperative organizations.

As must be the case with every co-op which the Federal Farm Board encourages growers to form, the new Northwestern turkey association is organized so as to comply with the Capper-Volstead Act. In other words, it is producer owned and producer-controlled, with safe-guards to keep it that way.

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ANNOUNCEMENT: You have just heard about the set-up of the new turkey growers regional co-operative association, as outlined to your farm reporter at Washington by Mr. A. Willardson, of the cooperative division of the Federal Farm Board, Station _____ presents this report in cooperation with the Federal Farm Board, and the United States Department of Agriculture.